KV-1820EN

Chassis No. SCC-96B-A

TRINITRON® COLOR TV

SPECIFICATIONS

Television System: CCIR system B, G and H

Color System: PAL

Picture Tube: 47 cm, 18" (44 cm screen measured diagonally), 114° deflection TRINITRON system

Semiconductors: 1 FET, 50 transistors, 67 diodes, 11 ICs and 1 GCS (Gate Controlled Switch)

Aerial: 75 Ω, asymmetrical aerial socket

Channel Coverage:
VHF channels: E2-4 (Band I)
E5-12 (Band III)
UHF channels: E21-68 (Band IV/V)

Intermediate Frequencies:
Picture i-f carrier: 38.9 MHz
Sound i-f carrier: 33.4 MHz

Sound System: 5.5 MHz intercarrier
Output power: 2 W (at 10 % harmonic distortion)
Speaker: 16 x 8 cm (6 1/4 x 3 1/8 inches) oval, 8 Ω

— Continued on page 2 —

X-RAY RADIATION WARNING!!

BE SURE THAT PARTS REPLACEMENT IN THE HIGH VOLTAGE BLOCK AND ADJUSTMENTS MADE TO THE HIGH VOLTAGE CIRCUITS ARE CARRIED OUT PRECISELY IN ACCORDANCE WITH THE PROCEDURES GIVEN IN THIS MANUAL.

WARNUNG VOR RÖNTGENSTRAHLEN!!

ES MUSS GARANTIERT WERDEN, DASS DER AUSTAUSCH VON BAUTEILEN UND EINSTELLUNGEN IM HOCHSPANNUNGSTEIL MIT GRÖSSTER SORGFALT AUSGEFÜHRT WERDEN UND SICH GENAU NACH DER VORSCHRIFT DIESER SERVICEANLEITUNG RICHTEN.
DER BESCHLEUNIGUNGSSPANNUNG DARF NICHT ERHÖHT WERDEN, DAMIT KEINE SCHÄDLICHEN RÖNTGENSTBAHLUNGEN ERZEUGT WERDEN. SIE SOLL 25,5 ± 1 kV BETRAGEN.

Geprüft Nach Röntgenverordnung V. 1. 3. 76:
Zulassungsschein Nr.: HH/9/76/RÖ

WARNING!!

TO ELIMINATE SHOCK HAZARD AND PROTECT EQUIPMENT WHEN SERVICING THE SET WITH THE COVERS REMOVED, MAKE SURE THAT THE SET IS PLUGGED INTO A SUITABLY-RATED ISOLATION TRANSFORMER.

WARNUNG!!

UM ELEKTRISCHE SCHLÄGE ZU VERMEIDEN SOWIE MESSGERÄTE BEI REPARATUREN VOR ZERSTÖRUNG ZU SCHÜTZEN, DARF DAS GERÄT BEI ABGENOMMENER RÜCKWAND NUR ÜBER EINEN ENTSPRECHEND DIMENSIONIERTEN TRENNTRANSFORMATOR BETRIEBEN WERDEN.

SONY®

SERVICE MANUAL

KV-1820EN

Video System: RGB cathode drive

Automatic Controls:
ABL (automatic brightness limiter)
ACC (automatic color control)
ACK (automatic color killer)
ADG (automatic degaussing)
AFC (automatic frequency control)
AFT (automatic fine tuning)
AGC (automatic gain control)
ANC (automatic noise canceller)
APC (automatic phase control)
AVR (automatic voltage regulator)

Anode Voltage: 25.5 ± 1 kV at zero beam current
24.0 kV at 0.6 mA beam current

Hochspannung: 25,5 ± 1 kV bei 0 mA Strahlstrom
24,0 kV bei 0.6 mA Strahlstrom

Power Requirements: 220/240 V AC, 50 Hz

Power Consumption: 110 W (max)

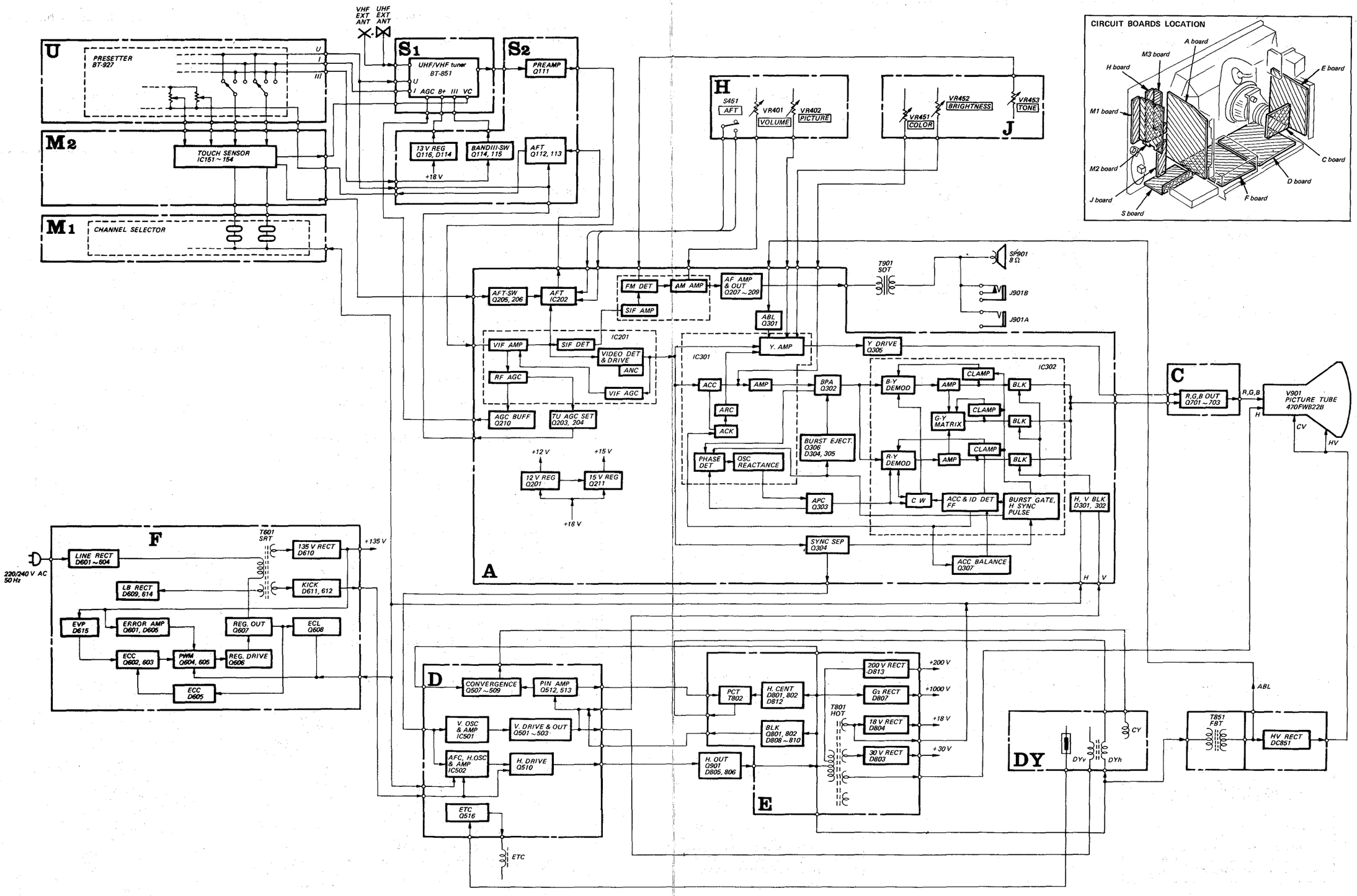
Dimensions: 575 (w) x 398 (h) x 375 (d) mm
22 5/8 (w) x 15 5/8 (h) x 14 3/4 (d) inches

Net Weight: 25 kg (55 lb 2 oz)

Accessories: Earpiece (ME-20E)
Instruction manual

SECTION 1

BLOCK DIAGRAM



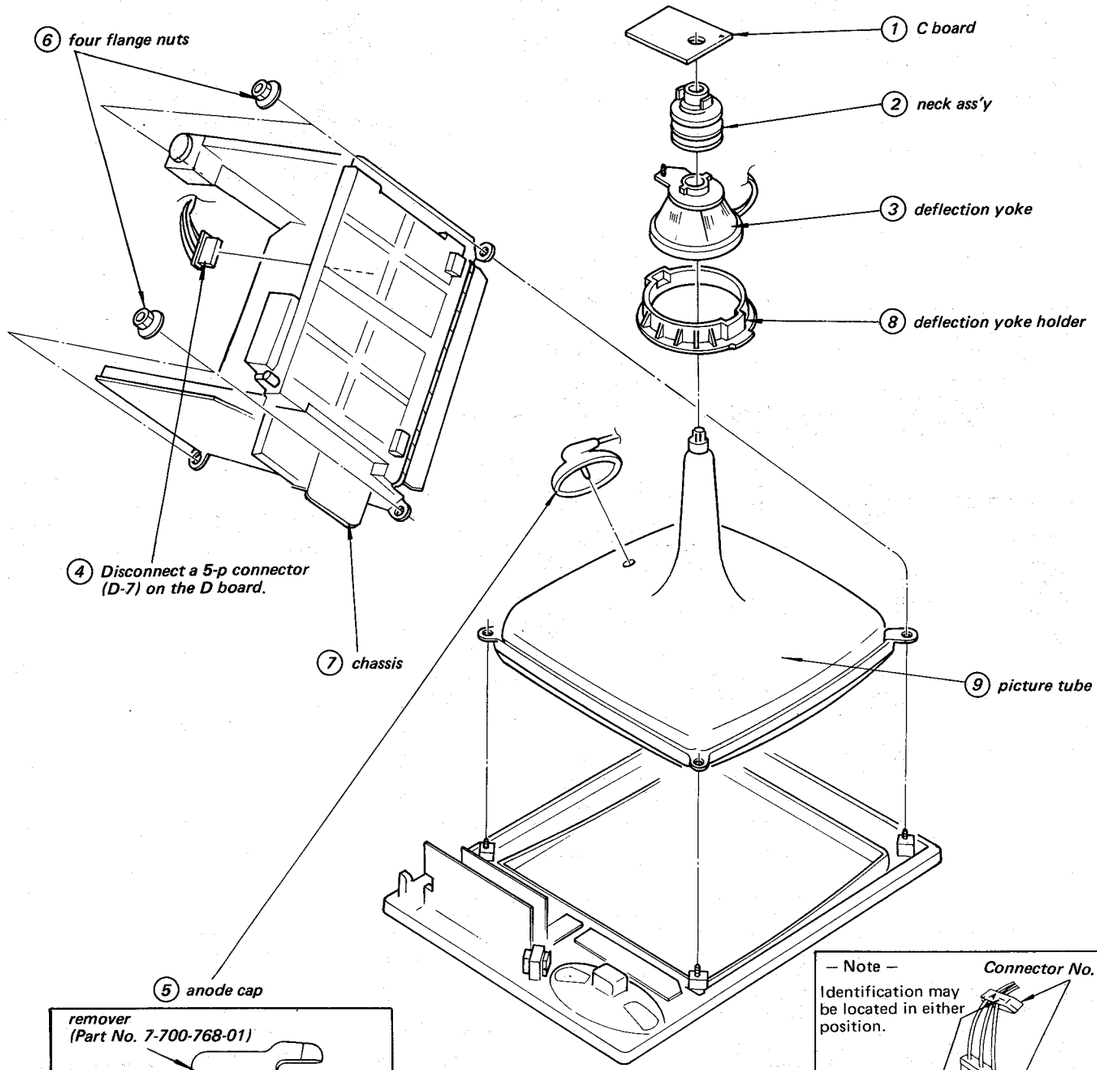
SECTION 2

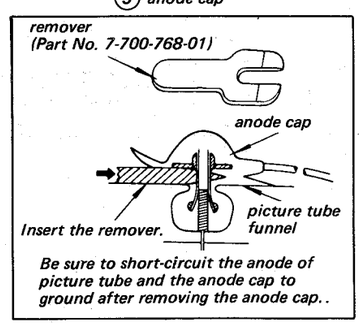
DISASSEMBLY AND REPLACEMENT

Note: All screws in this service manual are Phillips (cross recess) type unless otherwise noted.

2-1. PICTURE TUBE REMOVAL

Note: Perform the procedures in numerial order.



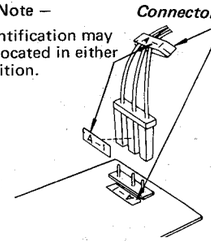


Be sure to short-circuit the anode of picture tube and the anode cap to ground after removing the anode cap..

– Note –

Identification may be located in either position.

Connector No.



This set uses connectors for junction between circuit boards. Before plugging them in, check that the number of the plug matches the number of the receptacle as illustrated above.

SECTION 3

SETUP ADJUSTMENTS

The following adjustments should be made when a complete realignment is required or a new picture tube is installed.

Controls and switches should be set as follows:

PICTURE (◑) control . . . maximum (fully upwards)
BRIGHTNESS
control . . . . . maximum (fully clockwise)
AFT switch . . . . . ON

Make the following adjustments in the order given.

1. Beam Landing
2. Convergence
3. White Balance

Note: Test Equipment Required.

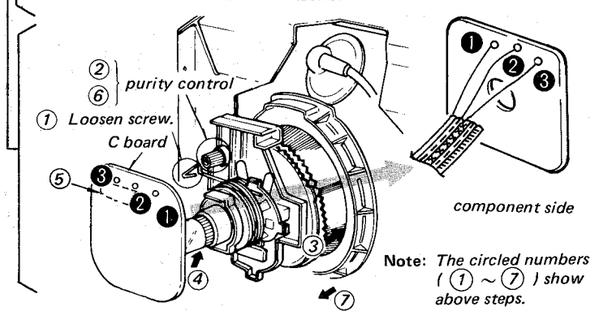
1. Color-bar/Pattern Generator
2. Degausser

3-1. BEAM LANDING

Preparation:

- Feed in the cross-hatch pattern.
- Before starting, degauss the entire screen.

1. Loosen deflection yoke screw.
2. Adjust purity control as shown in Fig. 3-1.
3. Slide deflection yoke as far forward as it will go.
4. Position neck assembly as shown in Fig. 3-2.
5. Disconnect leads ❶ and ❷ on the C board.
6. Adjust purity control to center vertical red band as shown in Fig. 3-3.
7. Slide deflection yoke back for a uniform red screen.
8. Check green and blue rasters for uniformity by performing the same way as steps 5, 6 and 7.
   To get a uniform green screen, connect lead ❶ on the C board and disconnect leads ❷ and ❸ .
   To get a uniform blue screen, connect lead ❷ on the C board and disconnect leads ❶ and ❸ .
   After these checks, connect the leads ❶ , ❷ and ❸ .
9. Tighten the deflection yoke screw.
10. Check if mislanding appears at corners a ~ d as shown in Fig. 3-4. If mislanding is observed, correct it as shown in Fig. 3-4.
11. Confirm that beam landing is correct when the receiver is faced in all directions.



Note: *The circled numbers (① ~ ⑦) show above steps.*

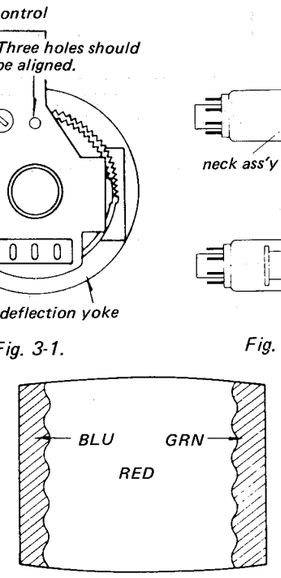


Fig. 3-1.

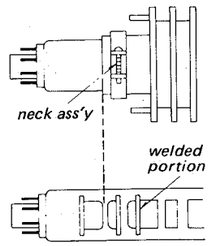


Fig. 3-2.

Fig. 3-3.

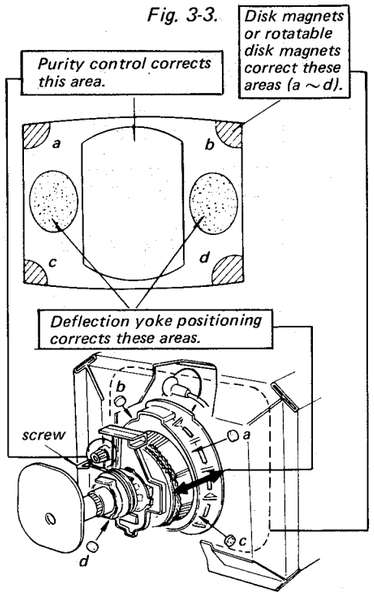


Fig. 3-4.

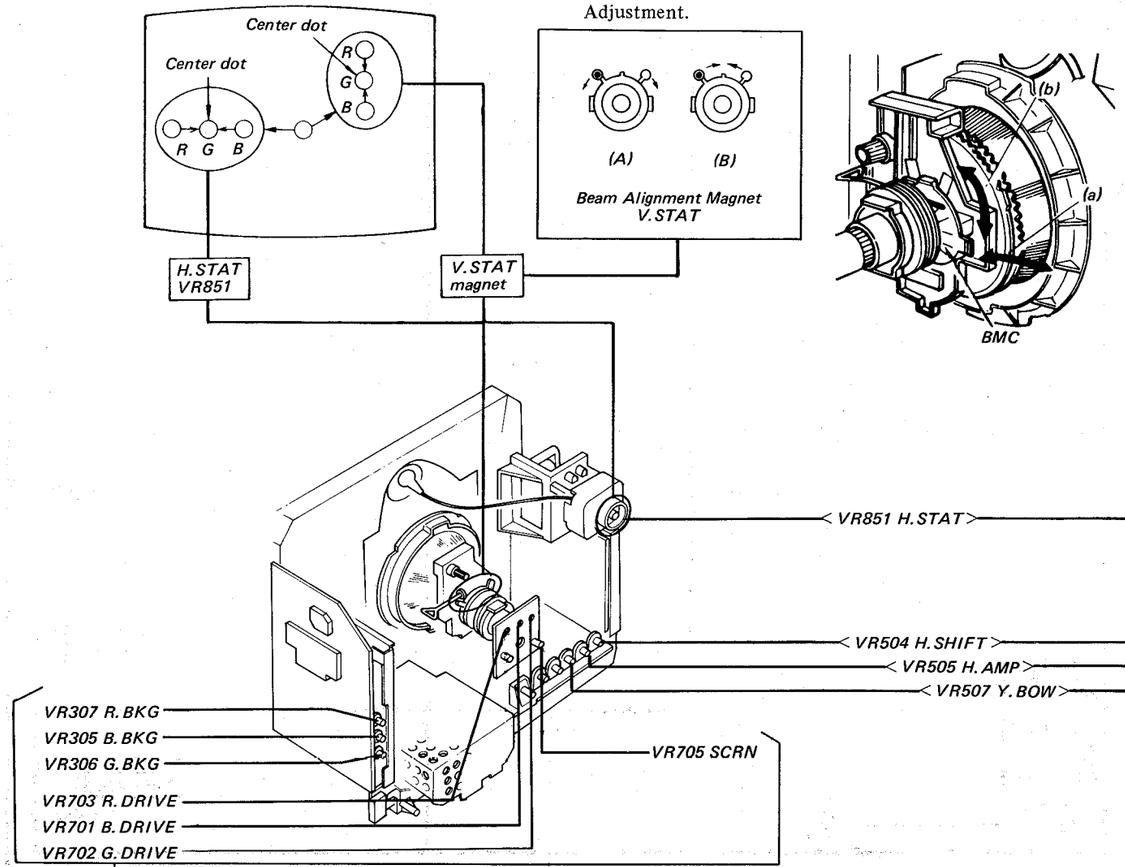
KV-1820EN

3-2. CONVERGENCE

Preparation:

- Before starting this adjustment, check FOCUS, H.SIZE, V.SIZE and V.LIN adjustments.
- Turn BRIGHTNESS control fully counterclockwise.
- Feed in a dot pattern.

(1) Horizontal Static Convergence and Vertical Static Convergence.



If the blue dot does not coincide with the red and green dots:

Move BMC magnet (a) to correct insufficient H.static convergence.
Rotate BMC magnet (b) to correct insufficient V.static convergence.

After either adjustment, repeat Beam Landing Adjustment.

3-3. WHITE BALANCE

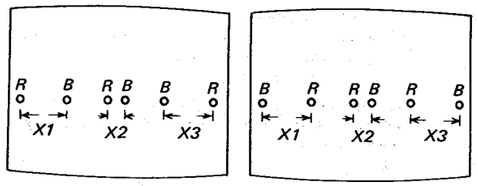
Feed in a cross-hatch pattern.

1. Turn BRIGHTNESS control fully counterclockwise and set PICTURE (◑) controls fully downwards.
2. Turn VR701 (B.DRIVE), VR702 (G.DRIVE) and VR703 (R.DRIVE) fully clockwise.
3. Set VR305 (B.BKG), VR307 (R.BKG) and VR306 (G.BKG) to mechanical center.
4. Turn VR705 (SCRN) slowly to obtain a faintly visible cross-hatch. Note the color that first becomes visible by turning VR705. Do not turn a BKG control for this color.
5. Adjust the other two BKG controls for best white balance (neutral gray) of faint cross-hatch.
6. Turn BRIGHTNESS control fully clockwise and set PICTURE (◑) controls fully upwards. Observe the screen and adjust the DRIVE controls for best white balance.
7. Repeat Steps 1 through 6 several times.

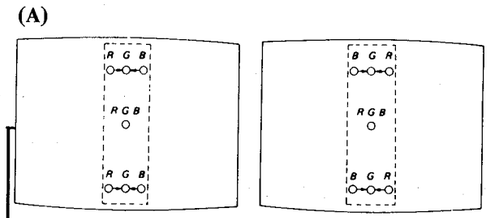
(2) Dynamic Convergence

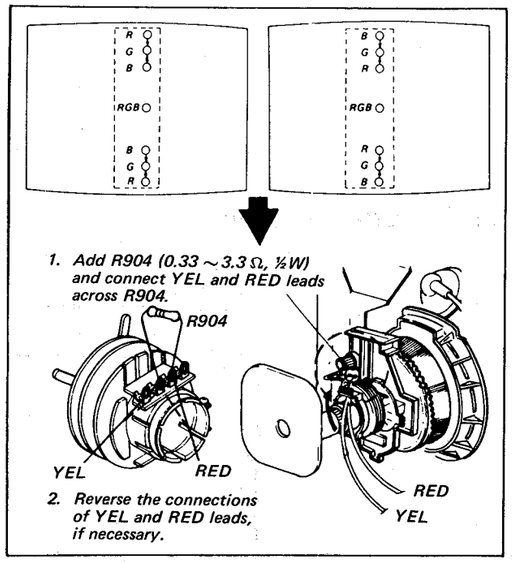
[Misconvergence at Both Sides of Screen.]

1. Set VR504 and VR505 to mechanical center.
2. Adjust VR851 so that green and blue dots coincide at center of screen.
3. Adjust VR504 so that X1 is equal to X3.
4. Adjust VR505 so that X2 is equal to X3.
5. Repeat above Steps 1 through 4 two or three times.

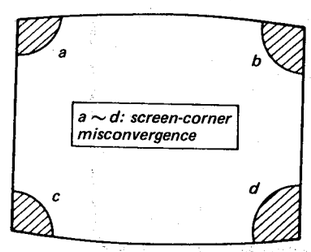


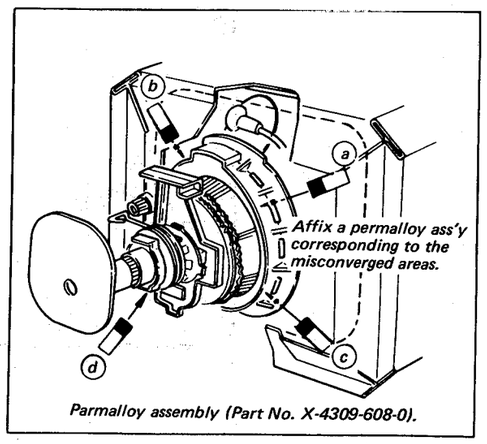
[Top and Bottom Misconvergence]





(3) Corner Convergence





SECTION 4

CIRCUIT ADJUSTMENTS

Note: (1) TEST EQUIPMENT REQUIRED

1. Oscilloscope
2. Voltmeter (VOM)
3. Color-bar/pattern generator

(2) INPUT SIGNAL

When making these adjustments, receive a cross-hatch, color-bar or off-air signal.

(3) CONTROL SETTINGS

Controls and switch should be set as follows when performing checks and adjustments unless otherwise noted.

PICTURE control, BRIGHTNESS control, COLOR control ..... Set for best picture

AFT switch ..... ON

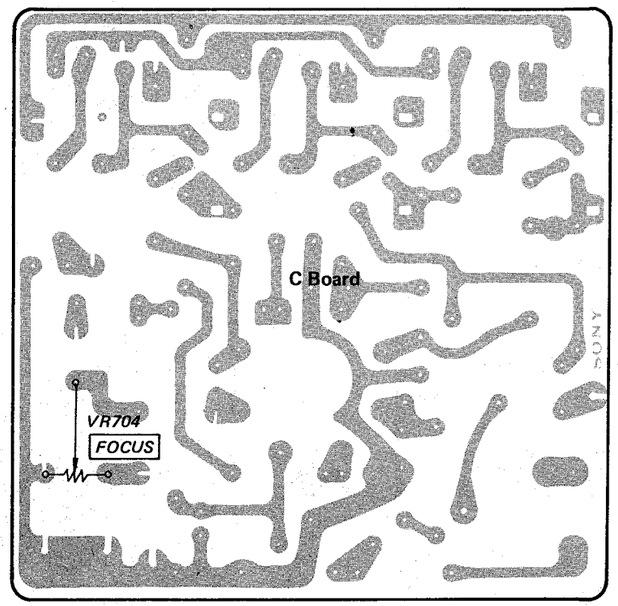
(4) CIRCUIT ADJUSTMENTS

Adjustment	Circuit Board	Page
FOCUS	C	9
B+ (135 V)	F	10
EVP		
SIF	A	11 ~ 12
SOUND (5.5 MHz) TRAP		
AFT		
UHF TUNER AGC		
VHF TUNER AGC		
DELAY LINE		
APC		
CW PHASE		
ACC		
U-V PHASE		
CWT		
H FREQ	D	13
PINCUSHION AMP and PINCUSHION BIAS		
H SIZE	E	14
BLANKING		

4-1. C BOARD ADJUSTMENT

FOCUS

Adjust VR704 for best focus.



4-2. F BOARD ADJUSTMENTS

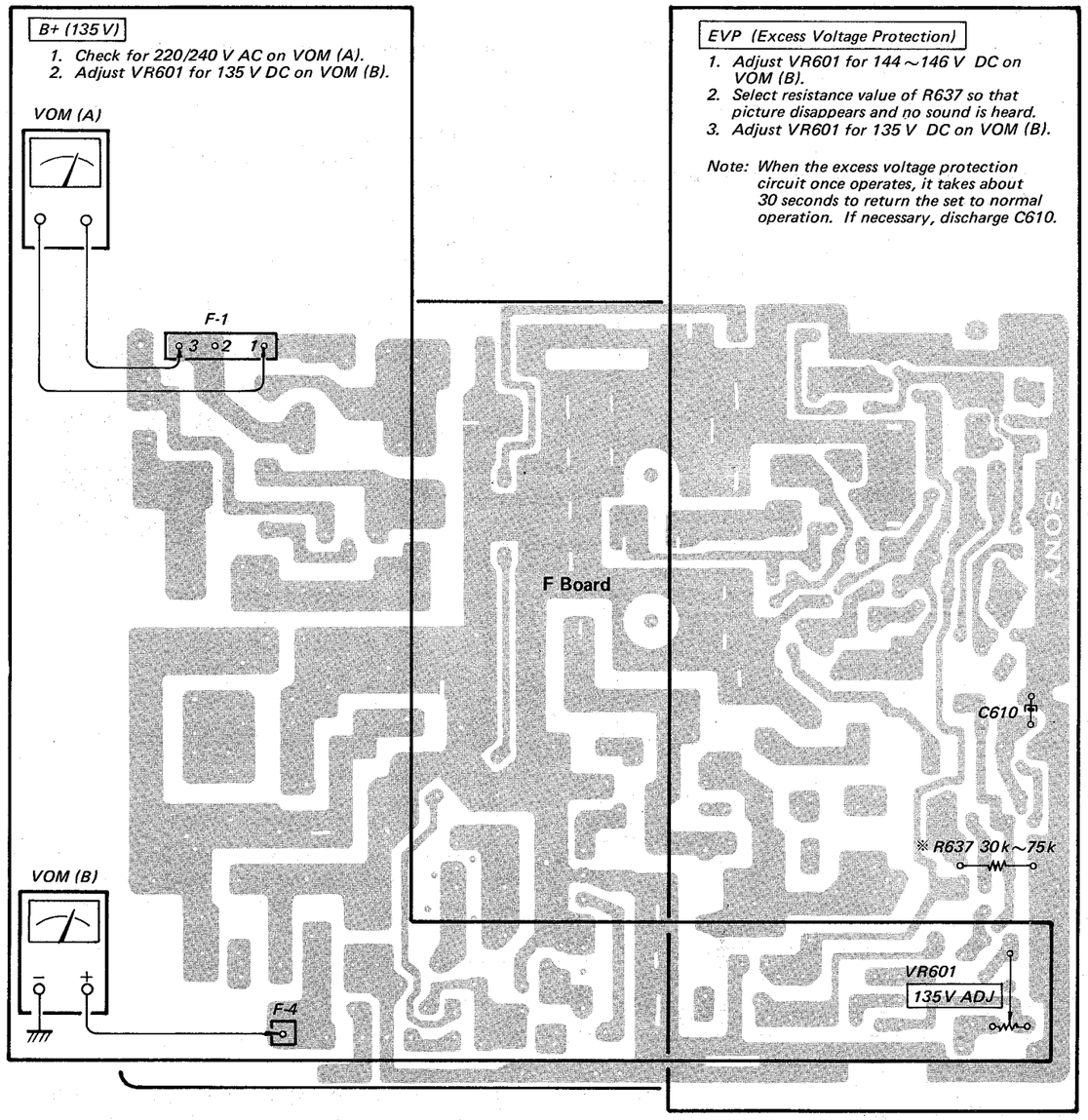
B+ (135 V)

1. *Check for 220/240 V AC on VOM (A).*
2. *Adjust VR601 for 135 V DC on VOM (B).*

EVP (Excess Voltage Protection)

1. *Adjust VR601 for 144 ~ 146 V DC on VOM (B).*
2. *Select resistance value of R637 so that picture disappears and no sound is heard.*
3. *Adjust VR601 for 135 V DC on VOM (B).*

Note: When the excess voltage protection circuit once operates, it takes about 30 seconds to return the set to normal operation. If necessary, discharge C610.



4-3. A BOARD ADJUSTMENTS

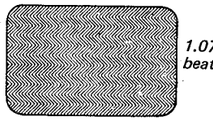
SIF

1. Tune in an off-air signal.
2. Adjust T213 for maximum-clear sound.

T213 SIFT-2

AFT

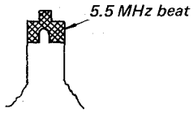
1. Tune in an off-air signal.
2. Set AFT switch to OFF.
3. Turn tuning knob so that the 1.07 MHz beat just disappears.
4. Set AFT switch to ON.
5. If no-color or 1.07 MHz beat appears on the picture, adjust T215 for best picture.



T215 AFT-3

SOUND (5.5 MHz) TRAP

1. Tune in an off-air signal.
2. Adjust T211 for minimum 5.5 MHz beat.



T211 5.5 MHz TRAP

Oscilloscope

V

IC201

12 1

APC

1. Feed in color-bar signal from color-bar/ pattern generator.
2. Short-circuit between the terminals 9 and 10 of IC301 with a jumper during this adjustment.
3. Adjust T303 to synchronize the color picture.

T303 APC

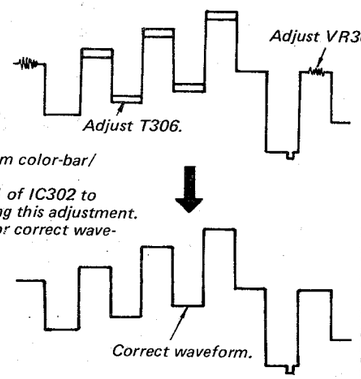
jumper

1 9 10

IC301

DELAY LINE

1. Feed in color-bar signal from color-bar/ pattern generator.
2. Short-circuit the terminal 1 of IC302 to ground with a jumper during this adjustment.
3. Adjust VR302 and T306 for correct waveform shown below.



A Board

UHF TUNER AGC

1. Tune in an off-air signal.
2. Adjust VR201 and VR203 so that snow and cross-modulation disappear from the picture.

VHF TUNER AGC

1. Tune in an off-air signal.
2. Adjust VR202 so that snow and cross-modulation disappear from the picture.

CWT

1. Feed in color-bar signal from color-bar/ pattern generator.
2. Adjust T305 for maximum level as shown.

U-V PHASE

1. Feed in color-bar signal from color-bar/ pattern generator.
2. Connect an oscilloscope to the terminal 3 of A-9.
3. Adjust VR301 to minimize Anti-PAL signal as shown.
4. Connect the oscilloscope to the terminal 2 of A-9.
5. Adjust VR304 to minimize Anti-PAL signal as shown.

VR201 U. AGC

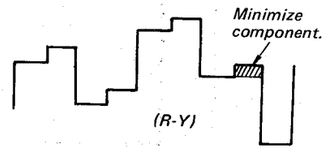
VR202 V. AGC

VR203 TU. AGC

Oscilloscope

V

maximum



VR301 1 k U-V PHASE

T305 CWT

VR304 2.2 k U. PHASE

19

IC302

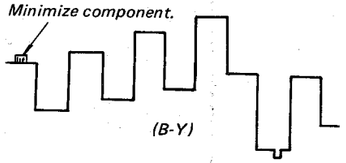
1

jumper

VR303 ACC

Oscilloscope

V



VR302 SMB

T306 DAT

Oscilloscope

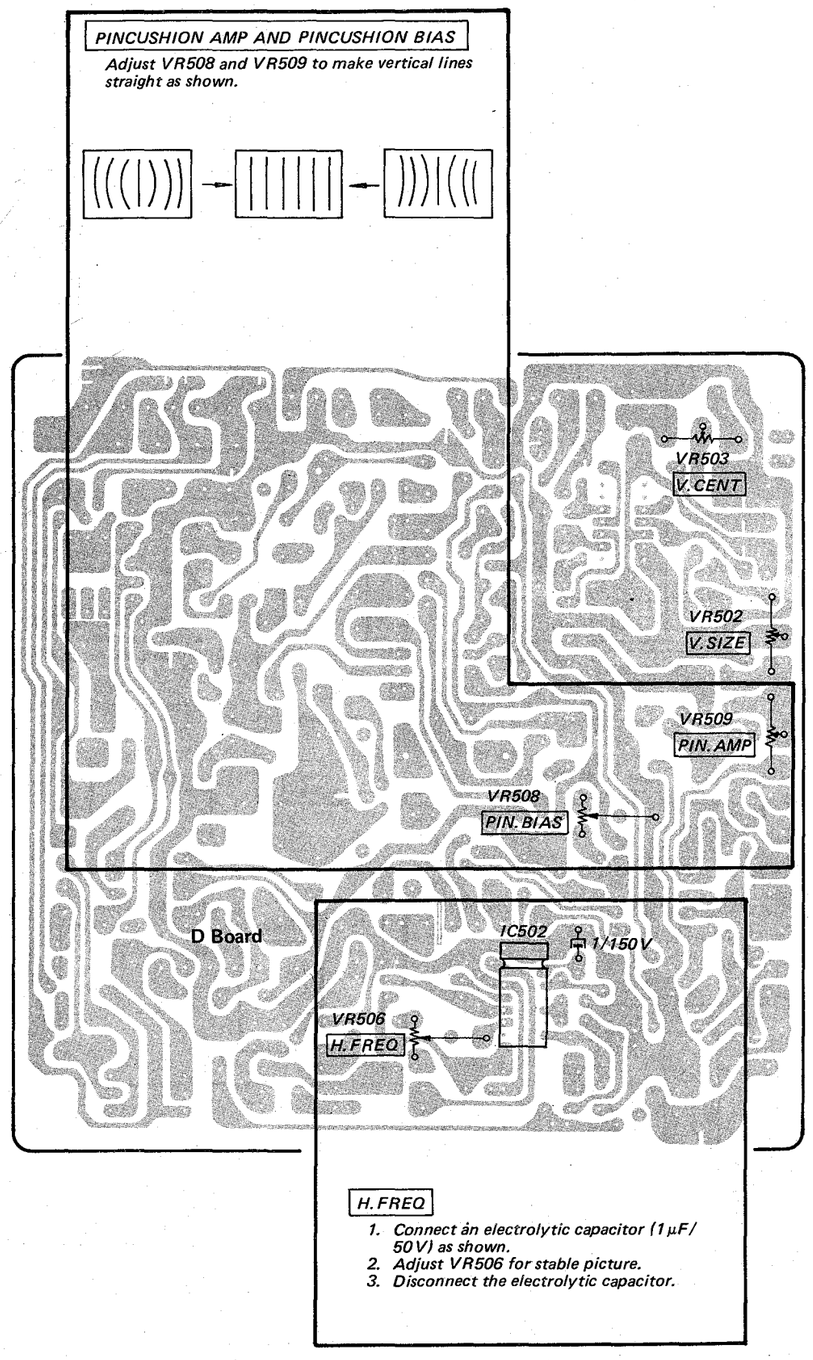
V

•6 •5 •4 •3 •2 •1 A-9

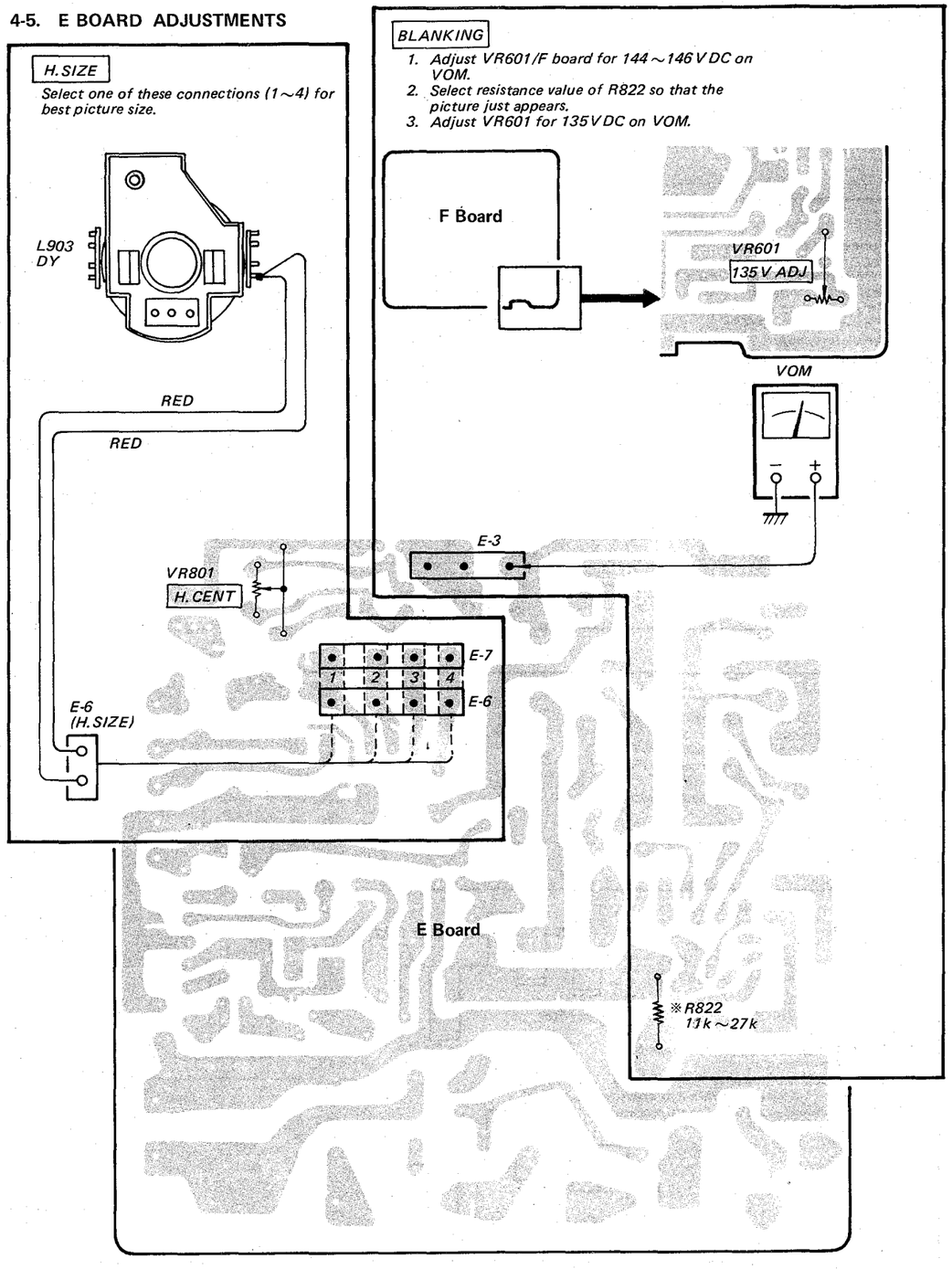
ACC

1. Tune in a strong off-air signal.
2. Set AFT switch to ON.
3. Set COLOR and PICTURE (◑) controls to mechanical center.
4. Adjust VR303 for suitable color intensity.

4-4. D BOARD ADJUSTMENTS



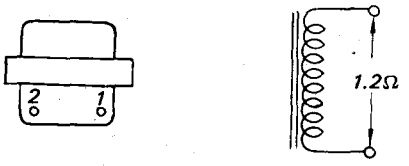
4-5. E BOARD ADJUSTMENTS



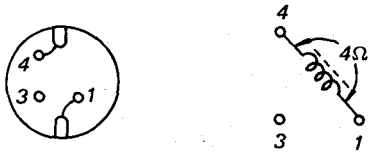
SECTION 5
DIAGRAMS

5-1. DC RESISTNACE AND WINDING DIAGRAMS OF COILS AND TRANSFORMERS

① L502 DCC-V

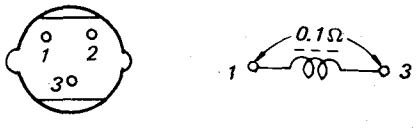


② L801 DCC

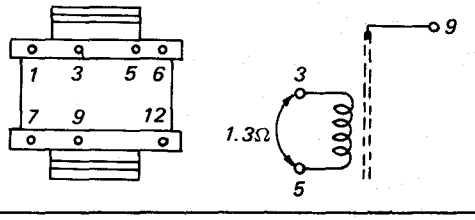


③ L802 HCC

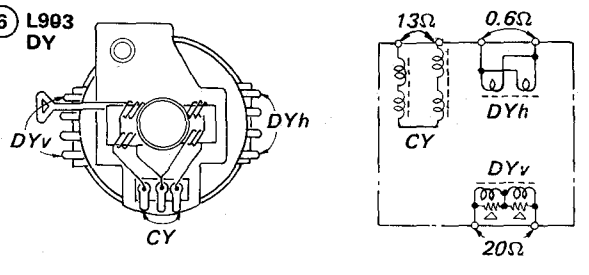
④ L803 HLC



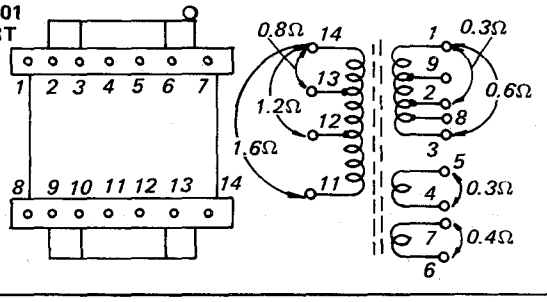
⑤ L807 SRC



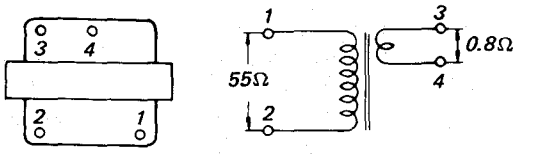
⑥ L993 DY



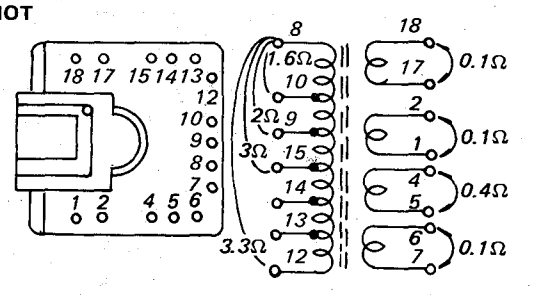
⑦ T601 SRT



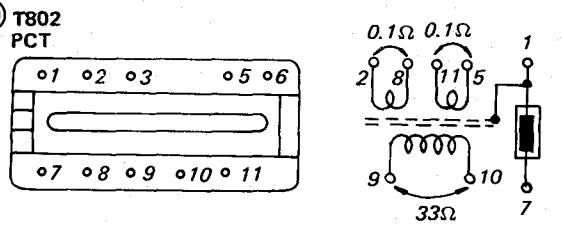
⑧ T602 RDT



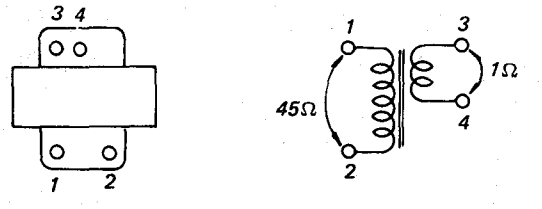
⑨ T801 HOT



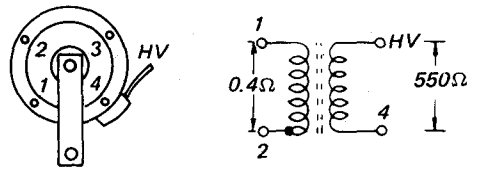
⑩ T802 PCT



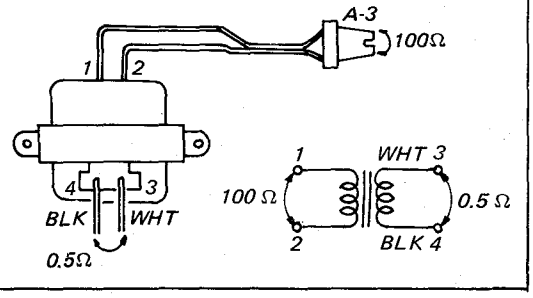
⑪ T803 HDT



⑫ T851 FBT



⑬ T901 SOT



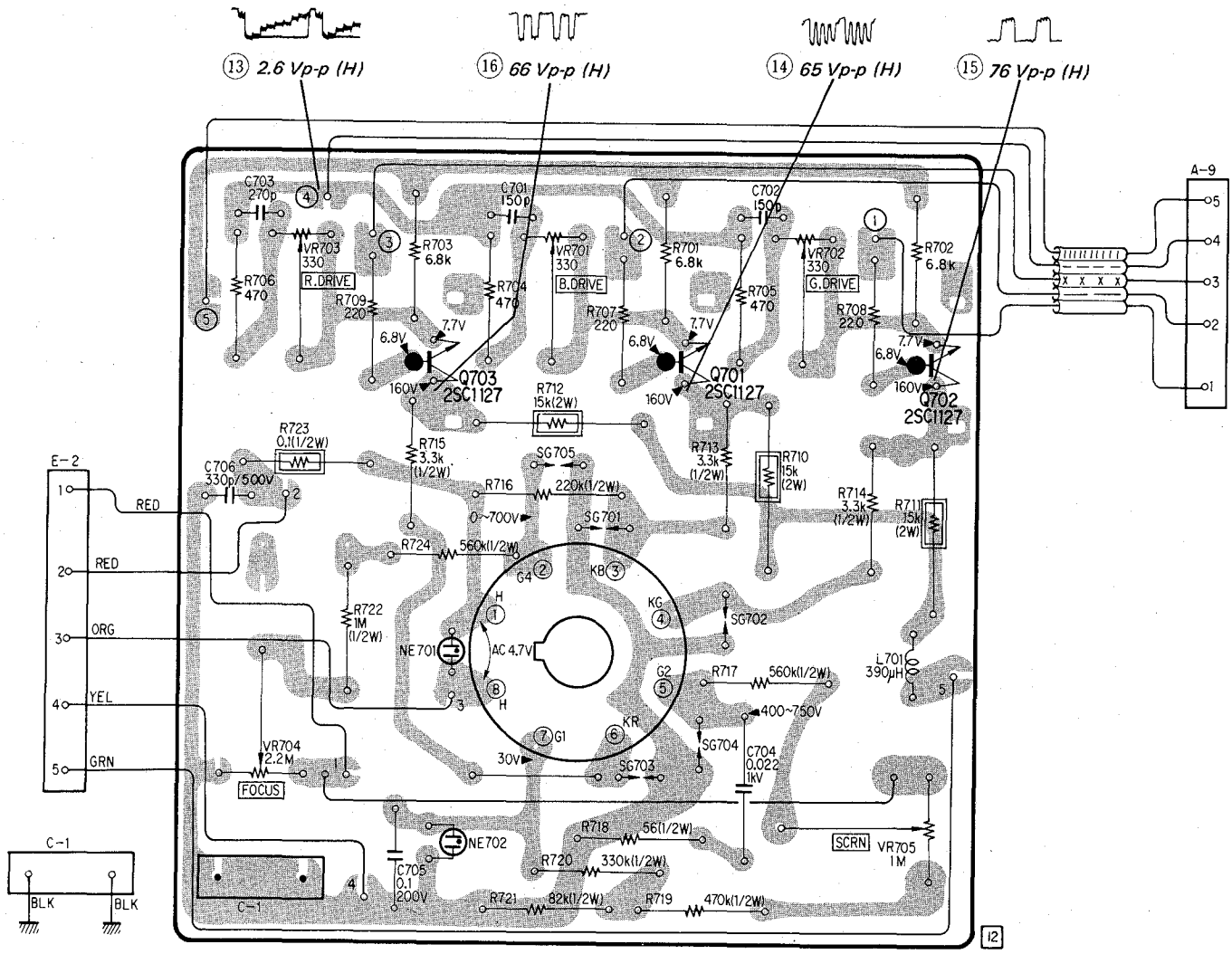
Note: DC resistance measurements shown with coil disconnected from circuit.

C

5-2. MOUNTING DIAGRAMS

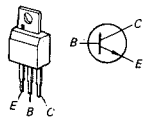
– Conductor Side –

— C Board —



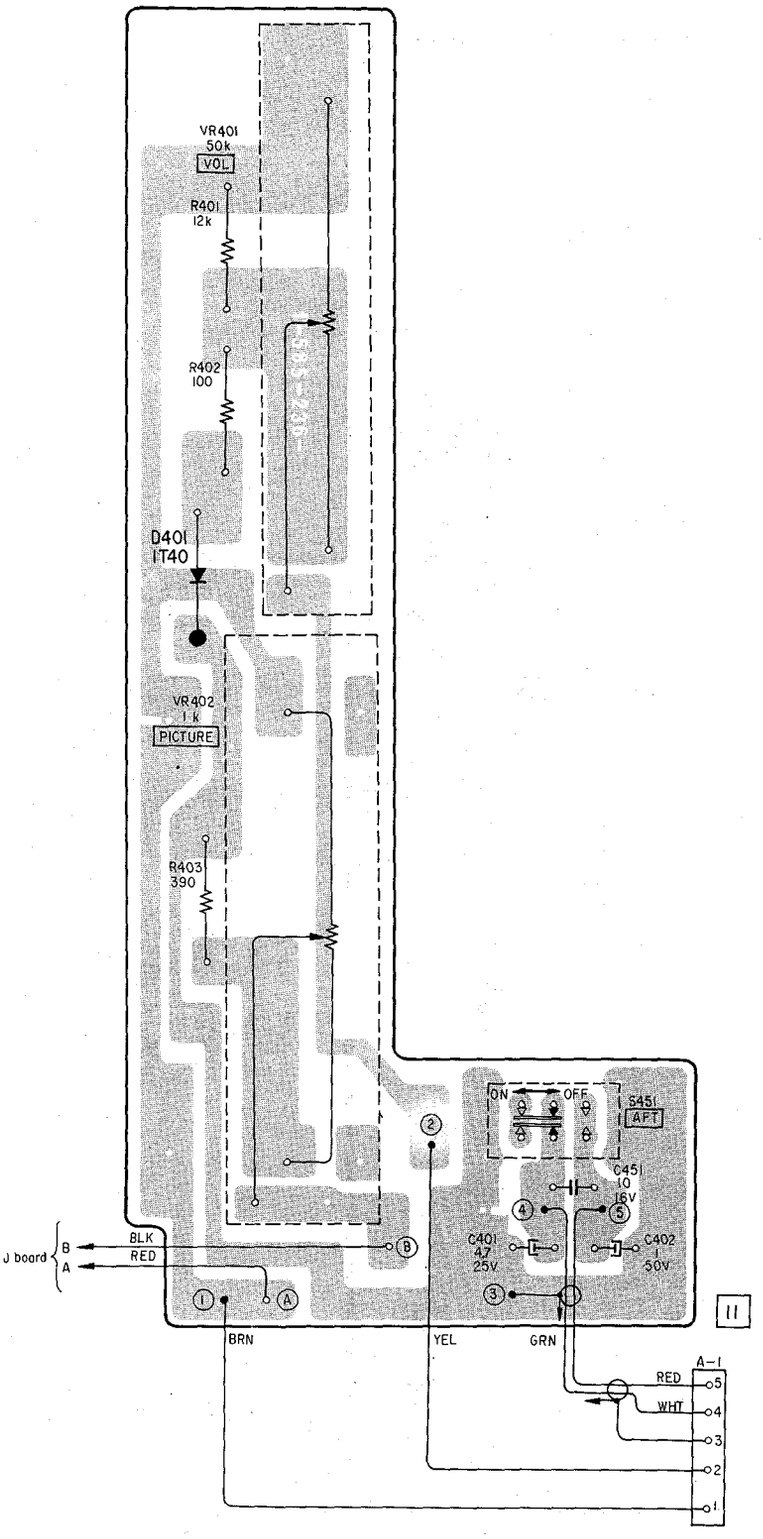
A-1330-096-A

2SC1127

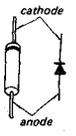


Note: ○—— : parts extracted from the component side.
●—— : parts extracted from the conductor side.

– H Board –



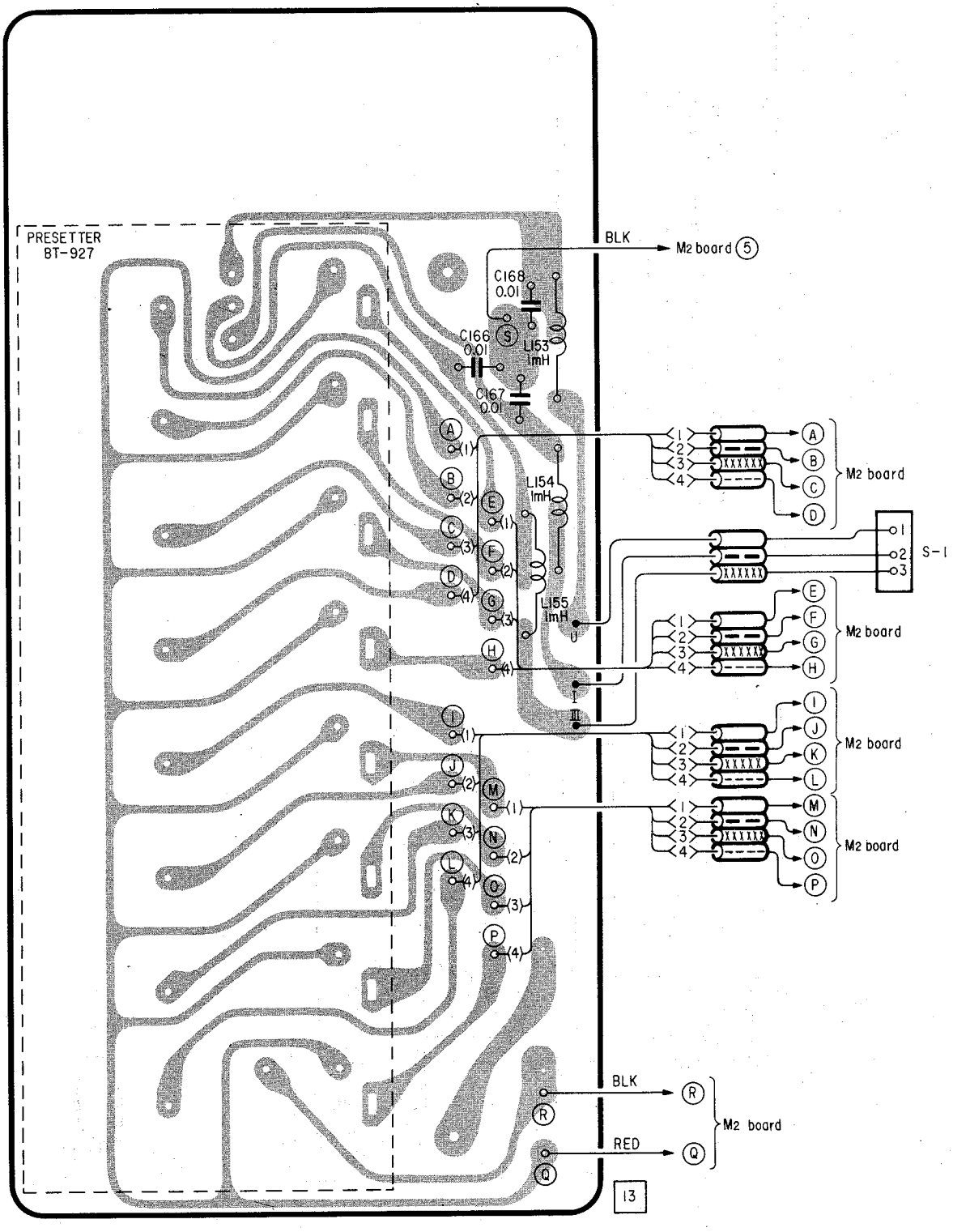
1T40



Note: o— : parts extracted from the component side.
•— : parts extracted from the conductor side.

M3

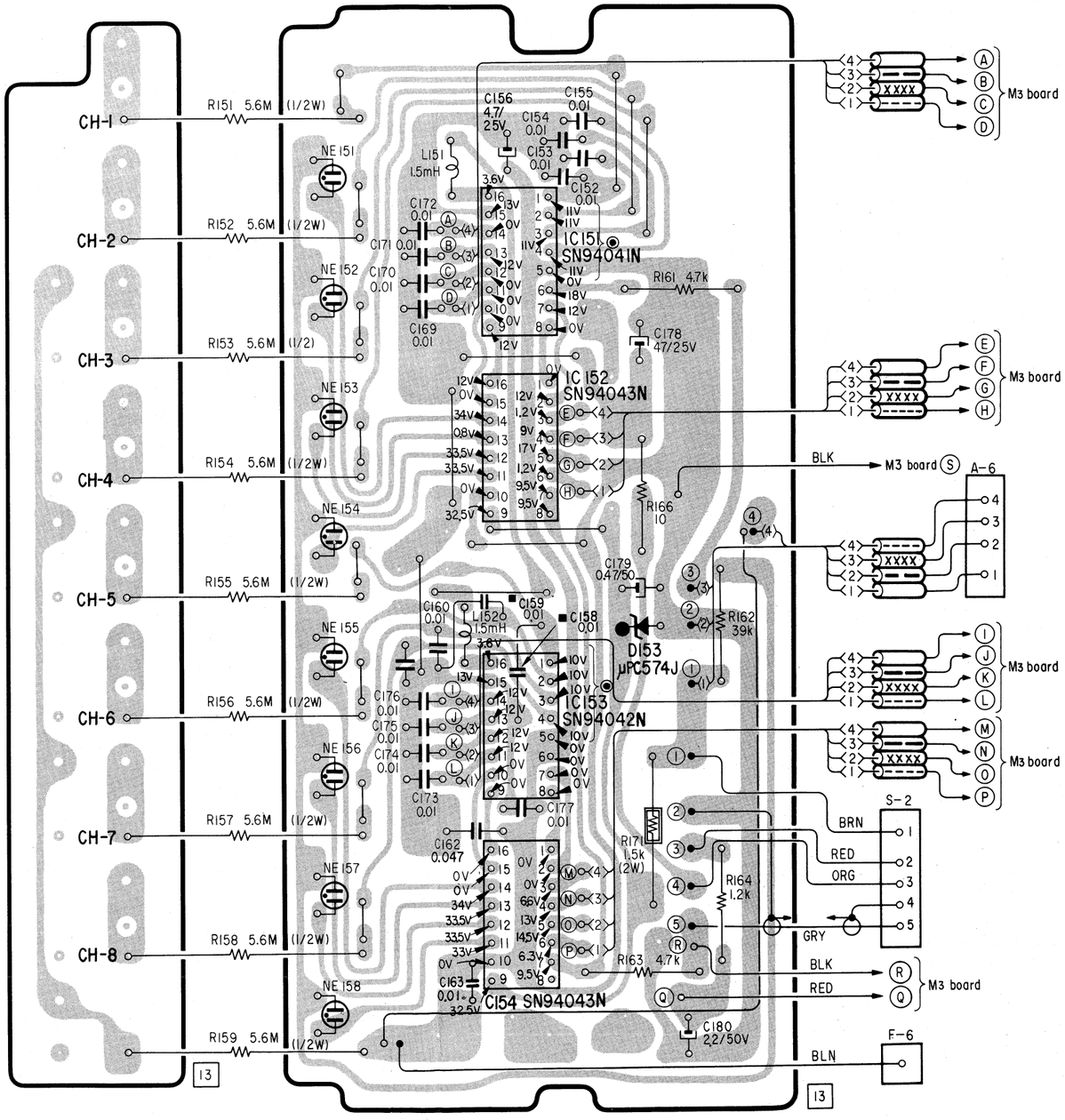
– M3 Board –



Note: o— : parts extracted from the component side.
●— : parts extracted from the conductor side.

— M1, 2 Boards —

IC	IC151 IC152 IC153 IC154
D	D153



SN94041N
SN94042N
SN94043N

μPC574J

Note:

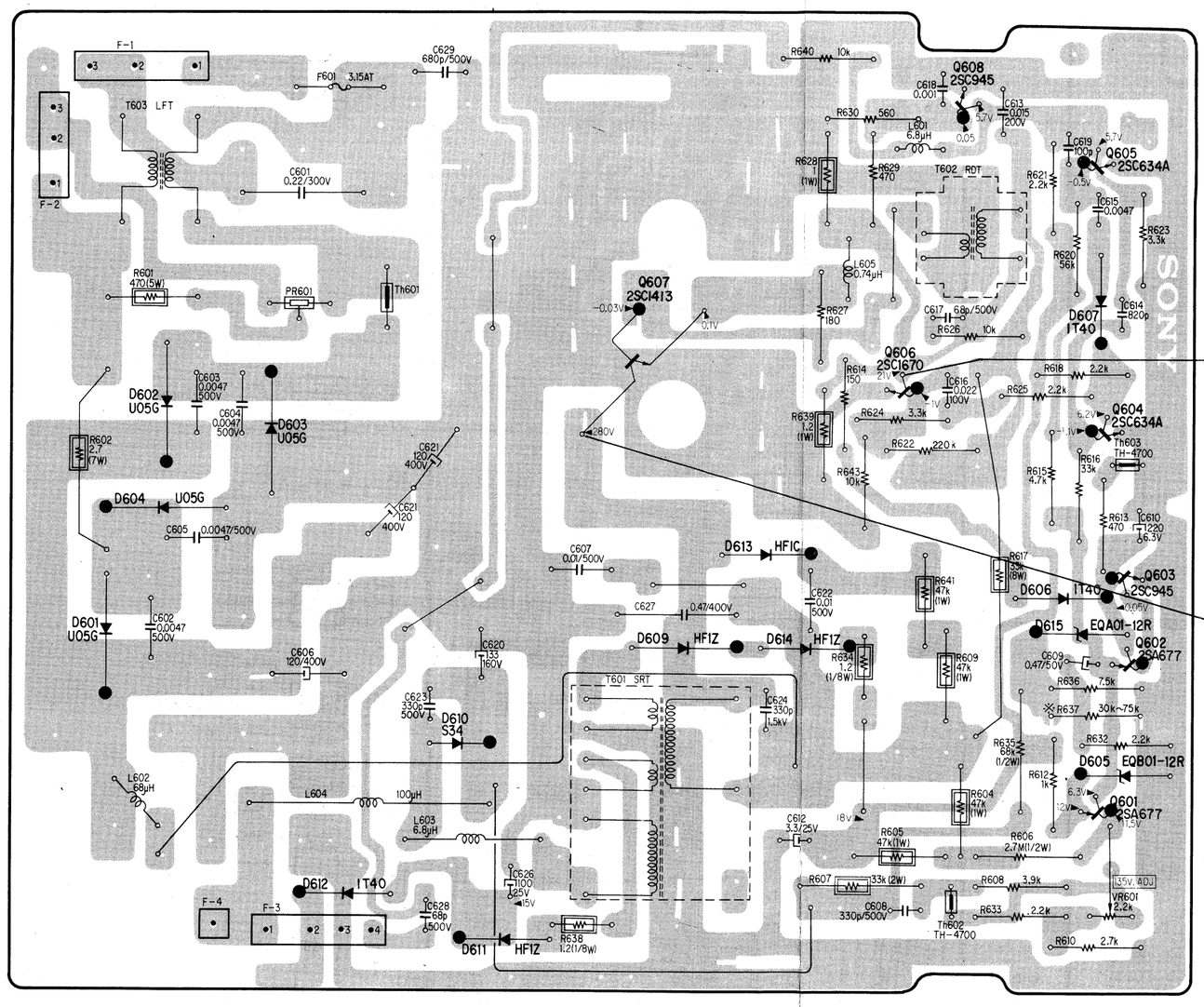
- ○—— : parts extracted from the component side.
- ●—— : parts extracted from the conductor side.
- ■ : part mounted on the conductor side.
- ⊣▭⊢ : nonflammable resistor.

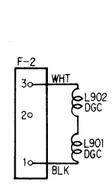
If the probe of VOM touches the positions indicated by ◉ on the M2 board, the channel will be changed.

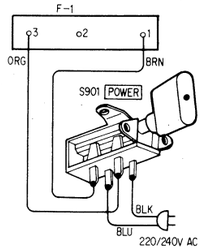
IC151 terminals	Channels	IC153 terminals	Channels
①	1	①	5
②	2	②	6
③	3	③	7
④	4	④	8

– F Board –

Q	D	ADJ
Q608		
Q605		
	D607	
Q607		
Q606		
	D602	
Q604	D603	
	D604	
	D613	
Q603		
	D606	
	D601 D615	
	D609 D614	
Q602		
	D610	
	D605	
Q601		
	D612	
	D611	VR601

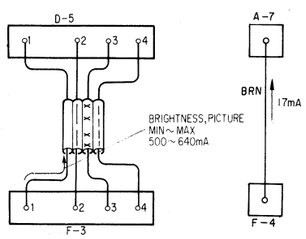






⑰ *84 Vp-p (H)*

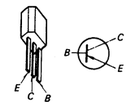
⑱ *710 Vp-p (H)*



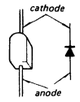
12

A-1240-066-A

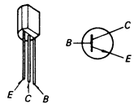
2SA677



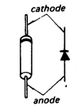
HF1Z



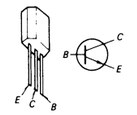
2SC945



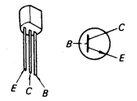
1T40



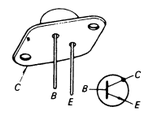
2SC634A



2SC1670

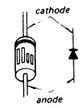


2SC1413

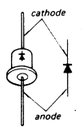


U05G

EQA01-12R
EQB01-12R



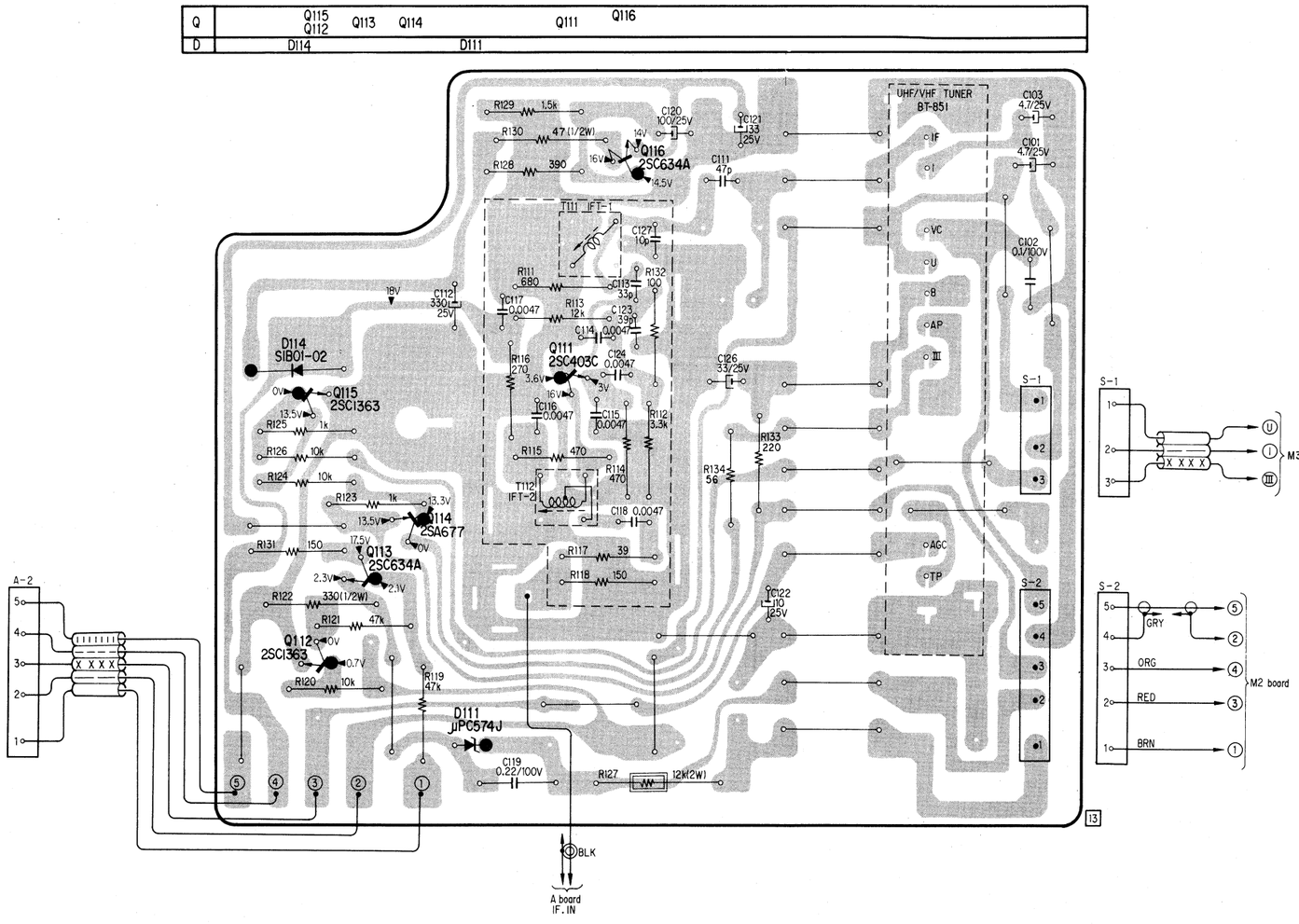
S34



Note: ○— : parts extracted from the component side.
●— : parts extracted from the conductor side.
■ : part mounted on the conductor side.
—▭— : nonflammable resistor.
※ : selected to yield optimum performance.

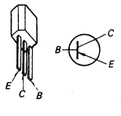
S J

– S Board –

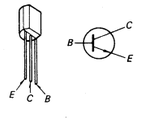


A-1355-005-A

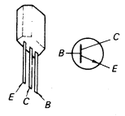
2SA677



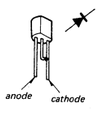
2SC1363



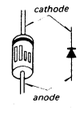
2SC403C
2SC634A



µPC574J

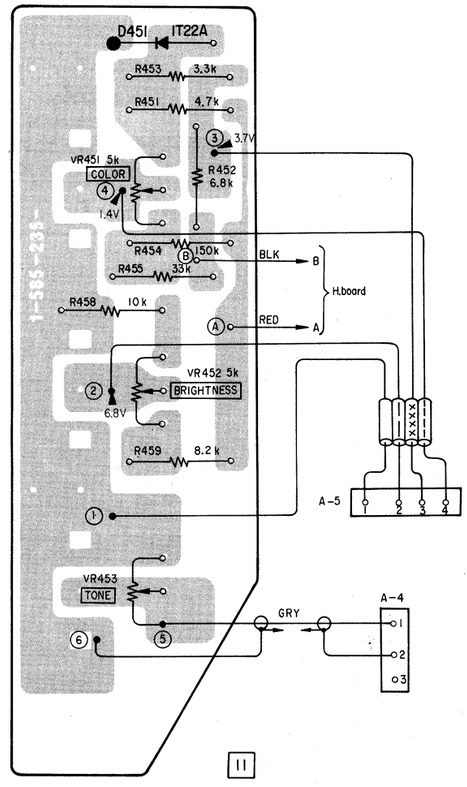


SIB01-02



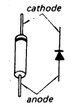
Note: ○— : parts extracted from the component side.
●— : parts extracted from the conductor side.
■ : part mounted on the conductor side.
—▭— : nonflammable resistor.

– J Board –

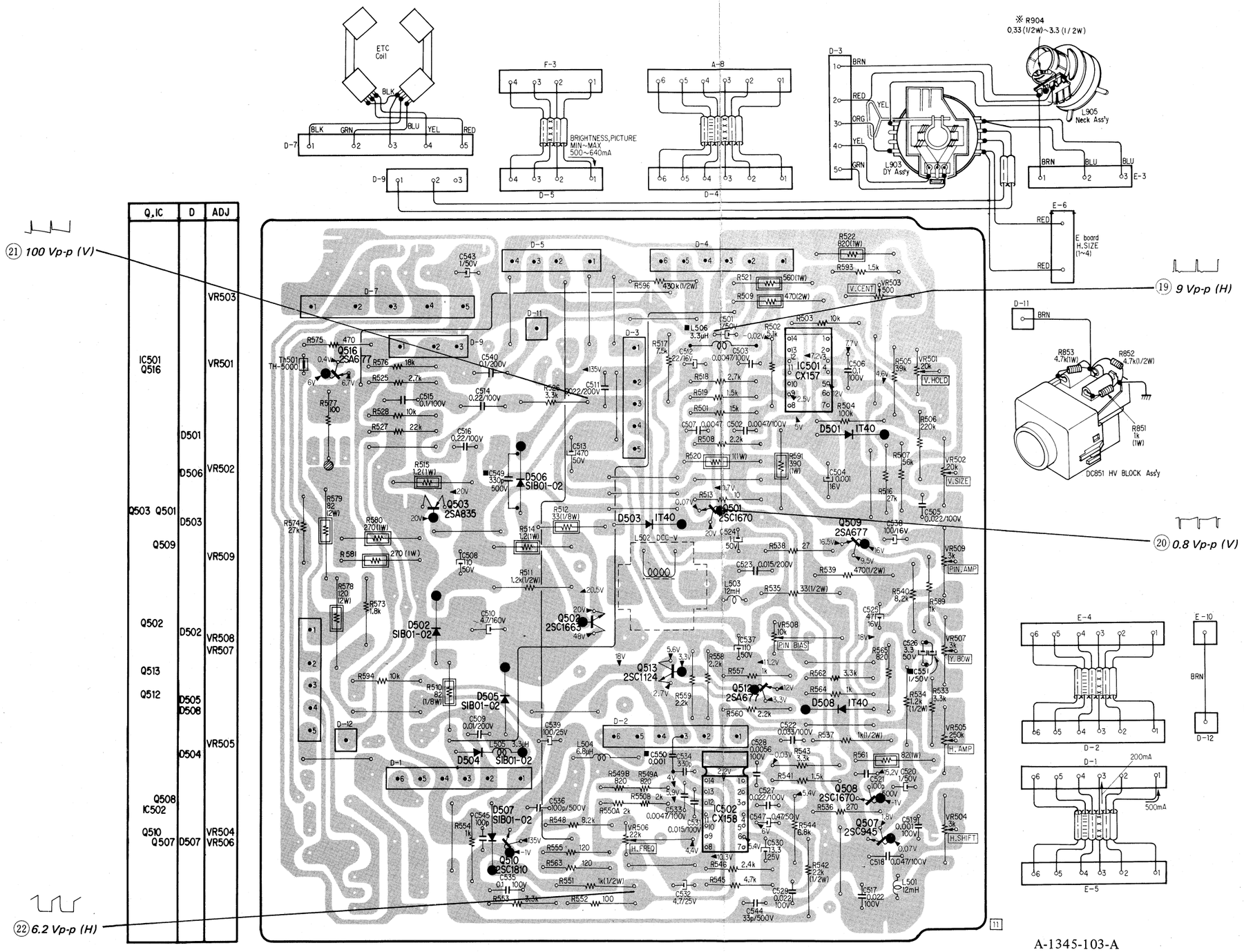


Note: ○— : parts extracted from the component side.
●— : parts extracted from the conductor side.

1T22A



– D Board –



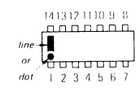
Note:

- ○— : parts extracted from the component side.
- ●— : parts extracted from the conductor side.
- ■ : part mounted on the conductor side.
- ⏦ : nonflammable resistor.

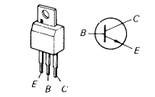
Voltages of Q516 are taken from the points to the chassis ground with D-7 and D-9 removed and also Th501 short-circuited.

A-1345-103-A

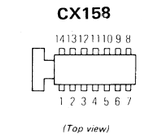
CX157



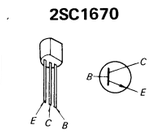
2SC1124 2SC1663



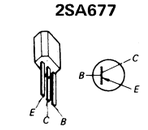
CX158



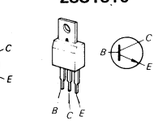
2SC1670



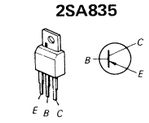
2SA677



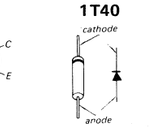
2SC1810



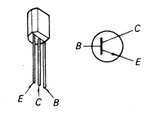
2SA835



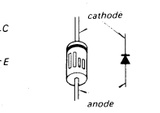
1T40



2SC945

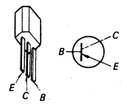


SIB01-02

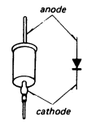


– E Board –

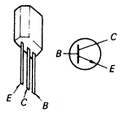
2SA678



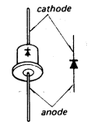
SID30-15



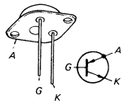
2SC634A



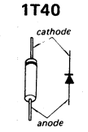
S34



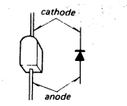
SG613H



RD11E
1T40

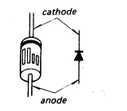


HF1
HF1A
HF1C
HF1Z



V11N

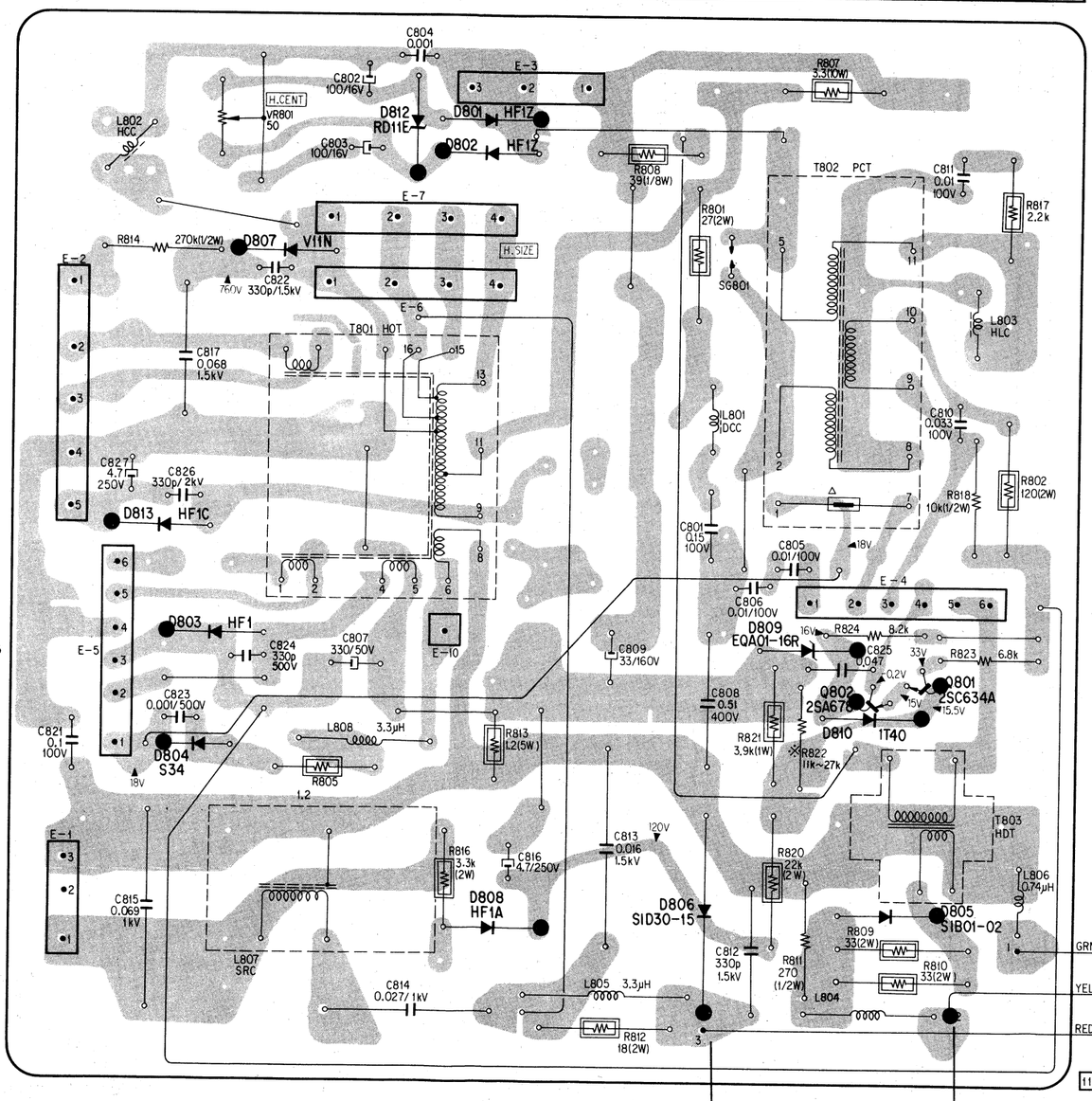
EQA01-16R
SIB01-02



Note:

- —○— : parts extracted from the component side.
- —●— : parts extracted from the conductor side.
- ■ : part mounted on the conductor side.
- —▭— : nonflammable resistor.
- ※ : selected to yield optimum performance.

Q	Q802 Q801
D	D813 D804 D803 D807 D812 D801 D802 D808 D806 D809 D810 D805
ADJ	VR801



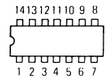
A-1345-104-A

(24) *1100 Vp-p (H)*

(23) *40 Vp-p (H)*

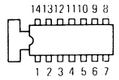
– A Board –

M5135P



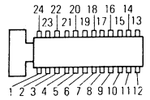
(Top view)

CX095C



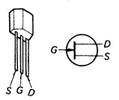
(Top view)

CX100D
CX108
CX109

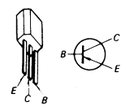


(Top view)

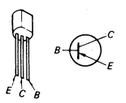
2SK23A



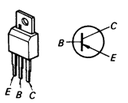
2SA677



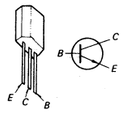
2SA773



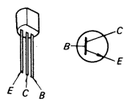
2SA920



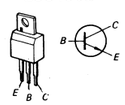
2SC403C
2SC634A
2SC926A



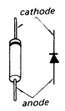
2SC1475



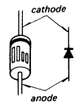
2SC1962



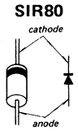
1T40



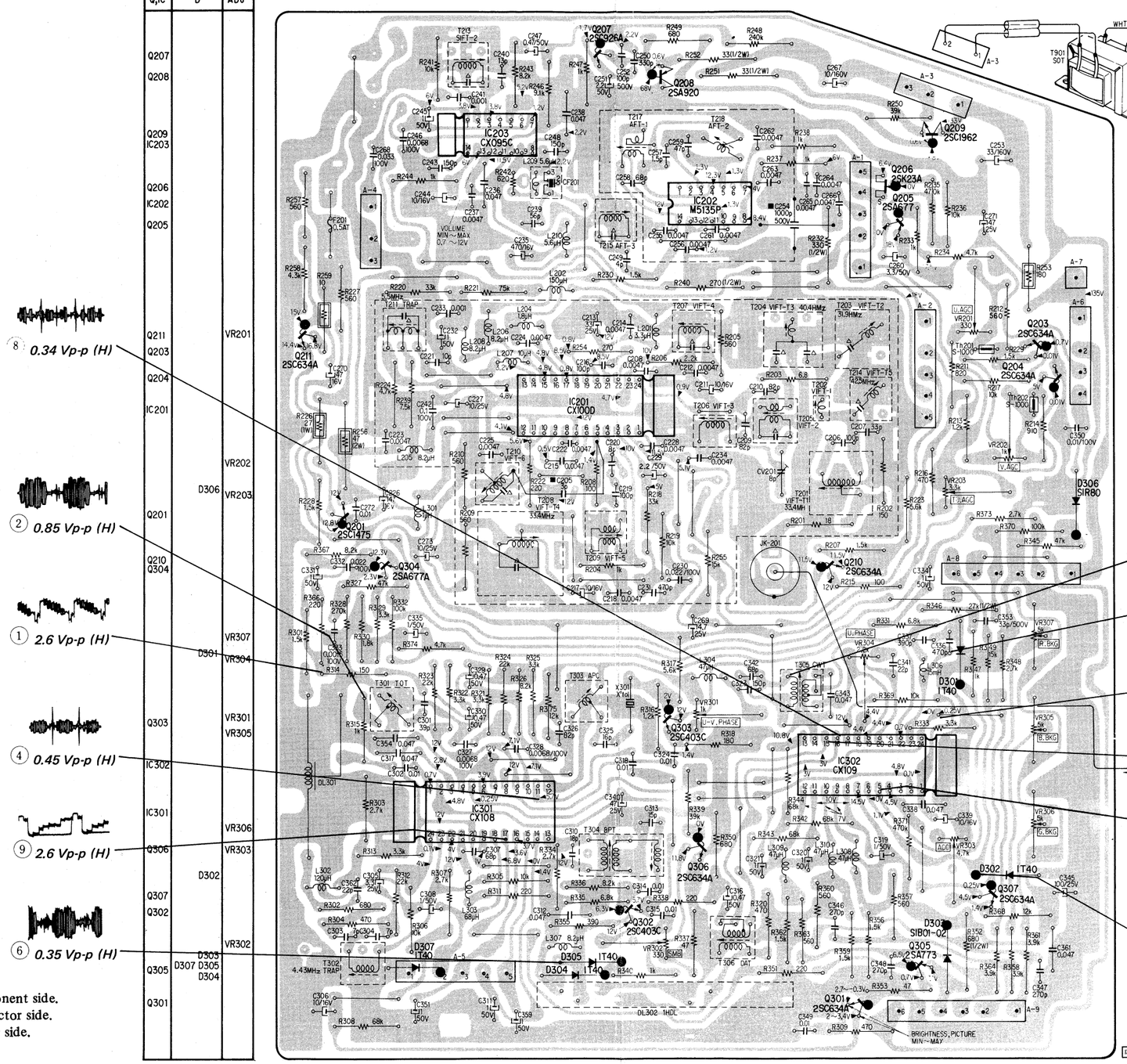
SIB01-02



SIR80



Q,IC	D	ADJ
Q207		
Q208		
Q209		
IC203		
Q206		
IC202		
Q205		
Q211		VR201
Q203		
Q204		
IC201		
		VR202
	D306	VR203
Q201		
Q210		
Q304		VR307
	D301	VR304
Q303		VR301
		VR305
IC302		
IC301		VR306
Q306		VR303
	D302	
Q307		
Q302		
		VR302
	D303	
Q305	D307 D305 D304	
Q301		



8 *0.34 Vp-p (H)*

② *0.85 Vp-p (H)*

① *2.6 Vp-p (H)*

④ *0.45 Vp-p (H)*

⑨ *2.6 Vp-p (H)*

⑥ *0.35 Vp-p (H)*

③ *1.2 Vp-p (H)*

⑩ *4.2 Vp-p (H)*

⑤ *3.6 Vp-p (H)*

⑦ *0.35 Vp-p (H)*

⑪ *3.4 Vp-p (H)*

⑫ *3.6 Vp-p (V)*

Note:

- ○— : parts extracted from the component side.
- ●— : parts extracted from the conductor side.
- ■ : part mounted on the conductor side.
- ▭ : nonflammable resistor.

A-1295-054-A

5-3. SCHEMATIC DIAGRAM

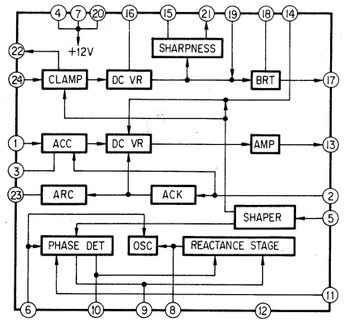
Note:

- All capacitors are in μF unless otherwise noted. pF = μμF.
- All resistors are in Ω, ¼W unless otherwise noted. k = 1000Ω, M = 1000kΩ
- ※ : Selected to yield optimum performance.
- △ : internal components.
- Voltages are dc with respect to ground unless otherwise noted. Readings are with a color-bar signal applied. Readings are taken with a 20,000-ohm-per-volt VOM.
- Voltages of Q516 are taken from the points to the chassis ground with D-7 and D-9 removed and also Th501 short-circuited.
  If the probe of VOM touches the positions indicated by ⊙ on the M2 board, the channel will be changed.

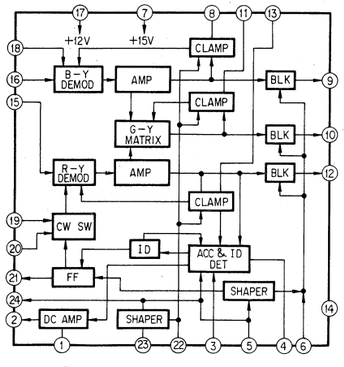
IC151 terminals	Channels	IC153 terminals	Channels
①	1	①	5
②	2	②	6
③	3	③	7
④	4	④	8

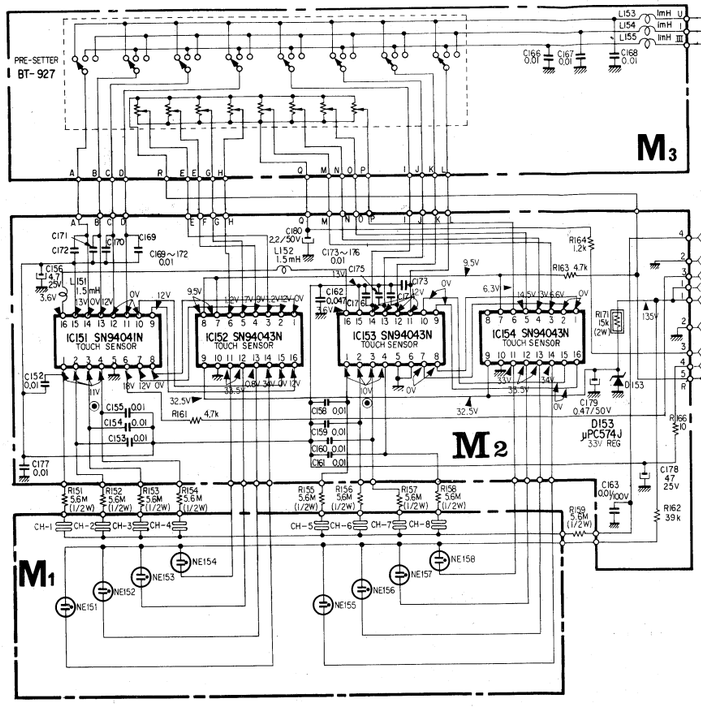
- Voltage variations may be noted due to normal production tolerances.
- ▭ : indicates a nonflammable resistor.
- ⊘ : Adjustable without removing cabinet.
- ▭ : Adjustment for repair.
- ▭ .: panel designation.

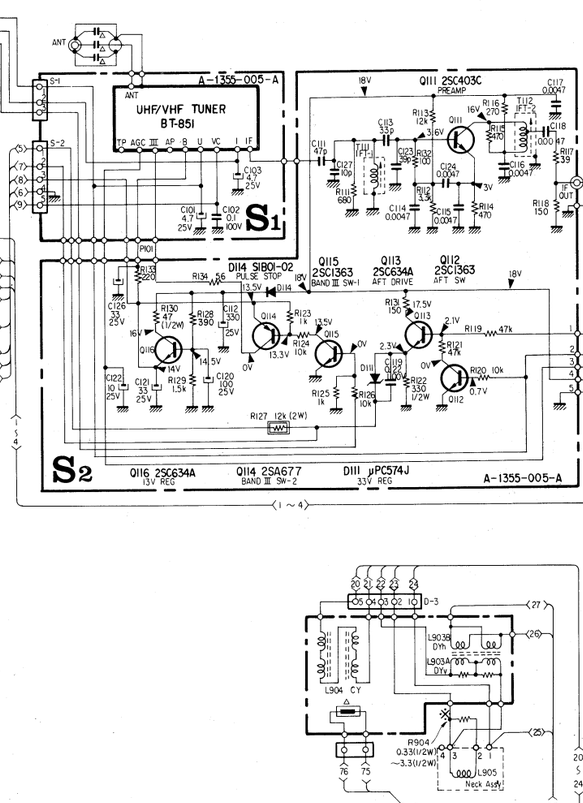
IC301 CX108

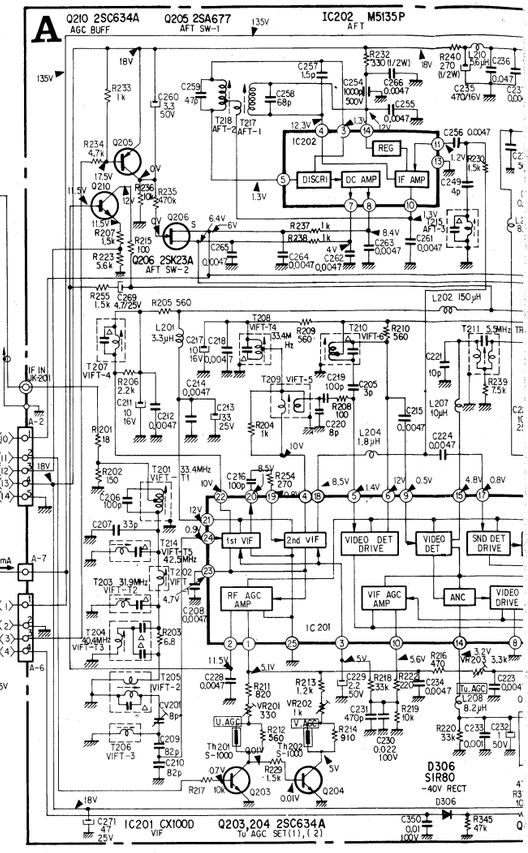


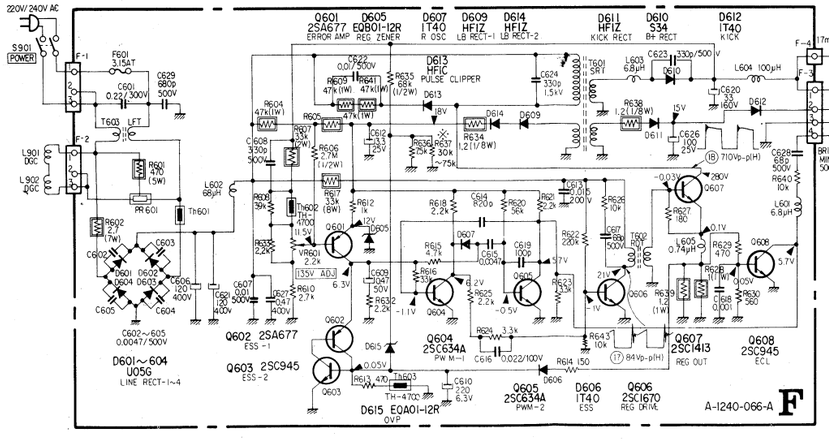
IC302 CX109

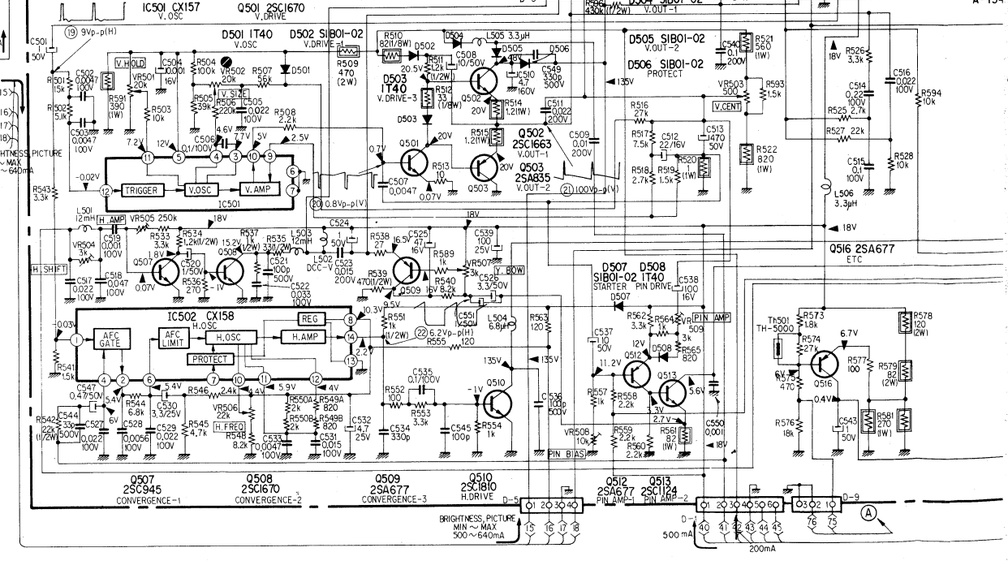




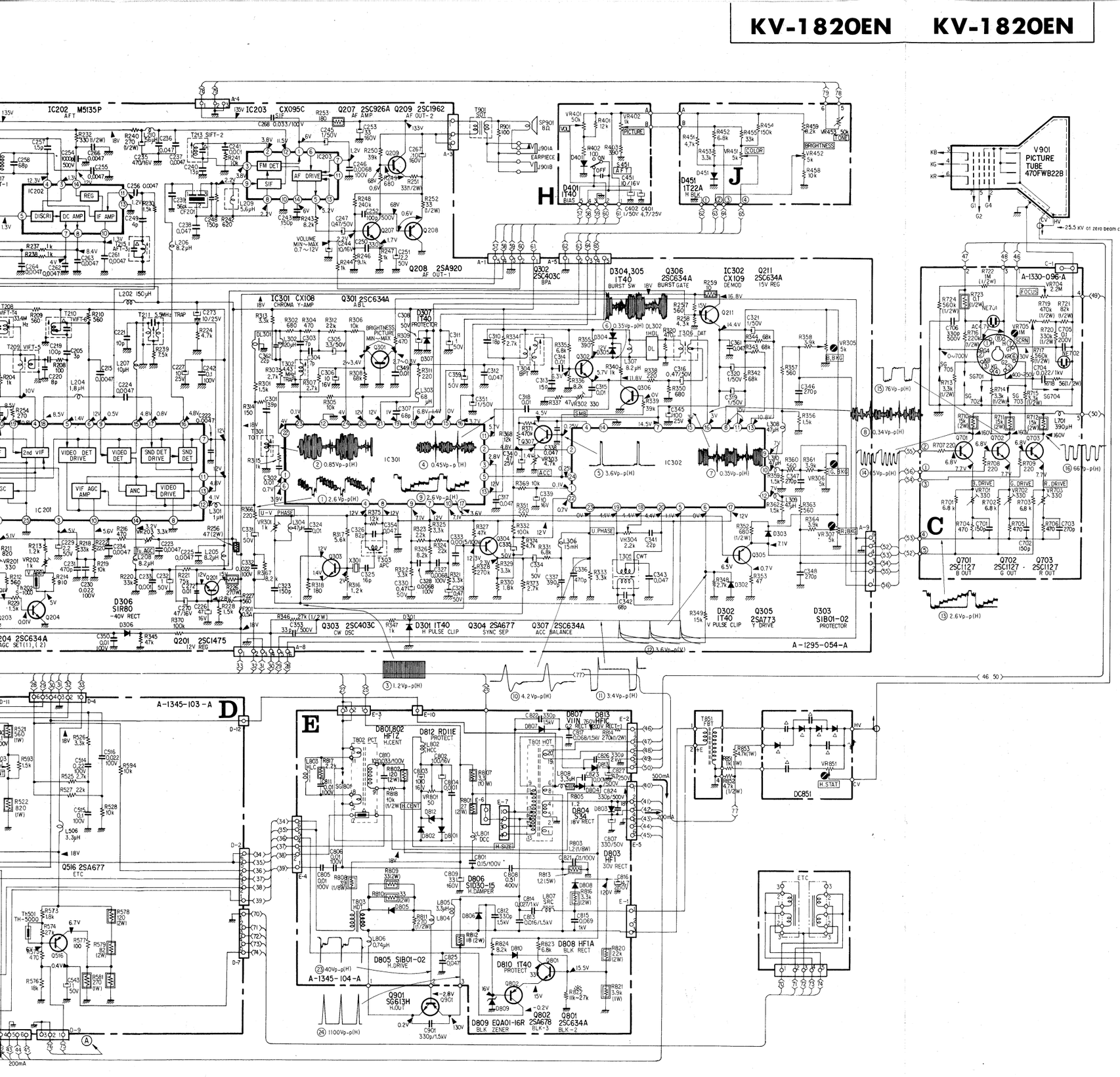




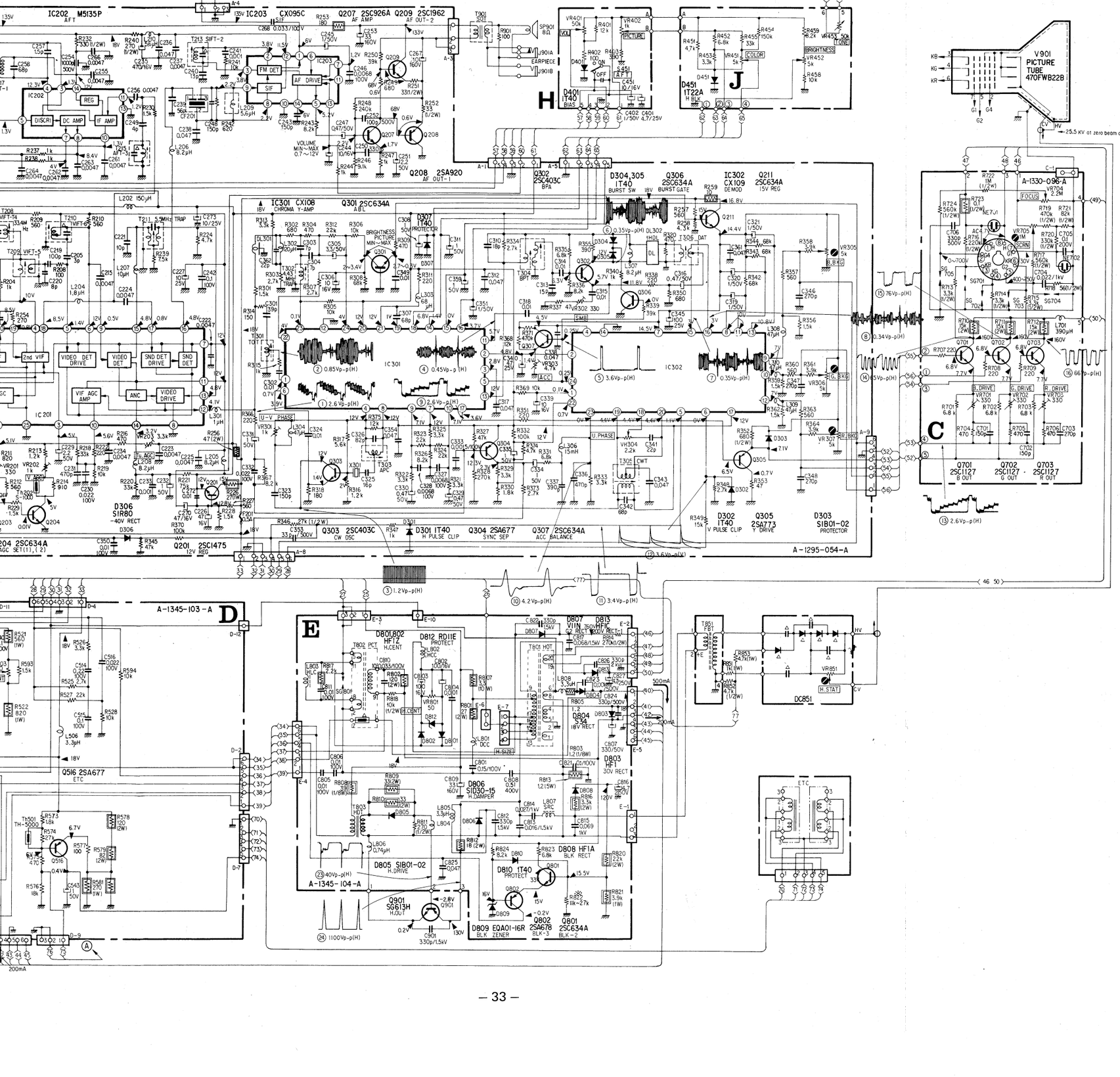




MEMO


IC202 M5135P AFT
IC203 CX095C SIF
Q207 2SC926A AF AMP
Q209 2SC1962 AF OUT-2
Q208 2SA920 AF OUT-1
H
D401 IT40 BIAS
J
D451 1T22A H BLK
V901 PICTURE TUBE 470FWB22B
25.5 KV at zero beam current
IC301 CX108 CHROMA Y-AMP
Q301 2SC634A ABL
Q302 2SC403C BPA
D304,305 IT40 BURST SW
Q306 2SC634A BURST GATE
IC302 CX109 DEMOD
Q211 2SC634A 15V REG
D307 IT40 PROTECTOR
D306 S1R80 -40V RECT
Q201 2SC1475 12V REG
Q204 2SC634A AGC SET(1),(2)
D303 S1B01-02 PROTECTOR
Q303 2SC403C CW OSC
D301 IT40 H PULSE CLIP
Q304 2SA677 SYNC SEP
Q307 2SC634A ACC BALANCE
Q305 2SA773 Y DRIVE
D302 IT40 V PULSE CLIP
A-1295-054-A
A-1330-096-A
C
Q701 2SC1127 B OUT
Q702 2SC1127 G OUT
Q703 2SC1127 R OUT
A-1345-103-A
D
A-1345-104-A
E
Q516 2SA677 ETC
D801,802 HF1Z H.CENT
D812 RD11E PROTECT
D807 VIIN 760V/2A RECT
D813 HF1C 1000V RECT
D804 S3A 1.8V RECT
D803 HF1 30V RECT
D806 S1D30-15 H.DAMPER
D805 S1B01-02 H.DRIVE
D810 IT40 PROTECT
D808 HF1A BLK RECT
D809 EQA01-16R BLK ZENER
Q802 2SA678 BLK-3
Q801 2SC634A BLK-2
Q901 SG613H H.OUT
DC851
ETC

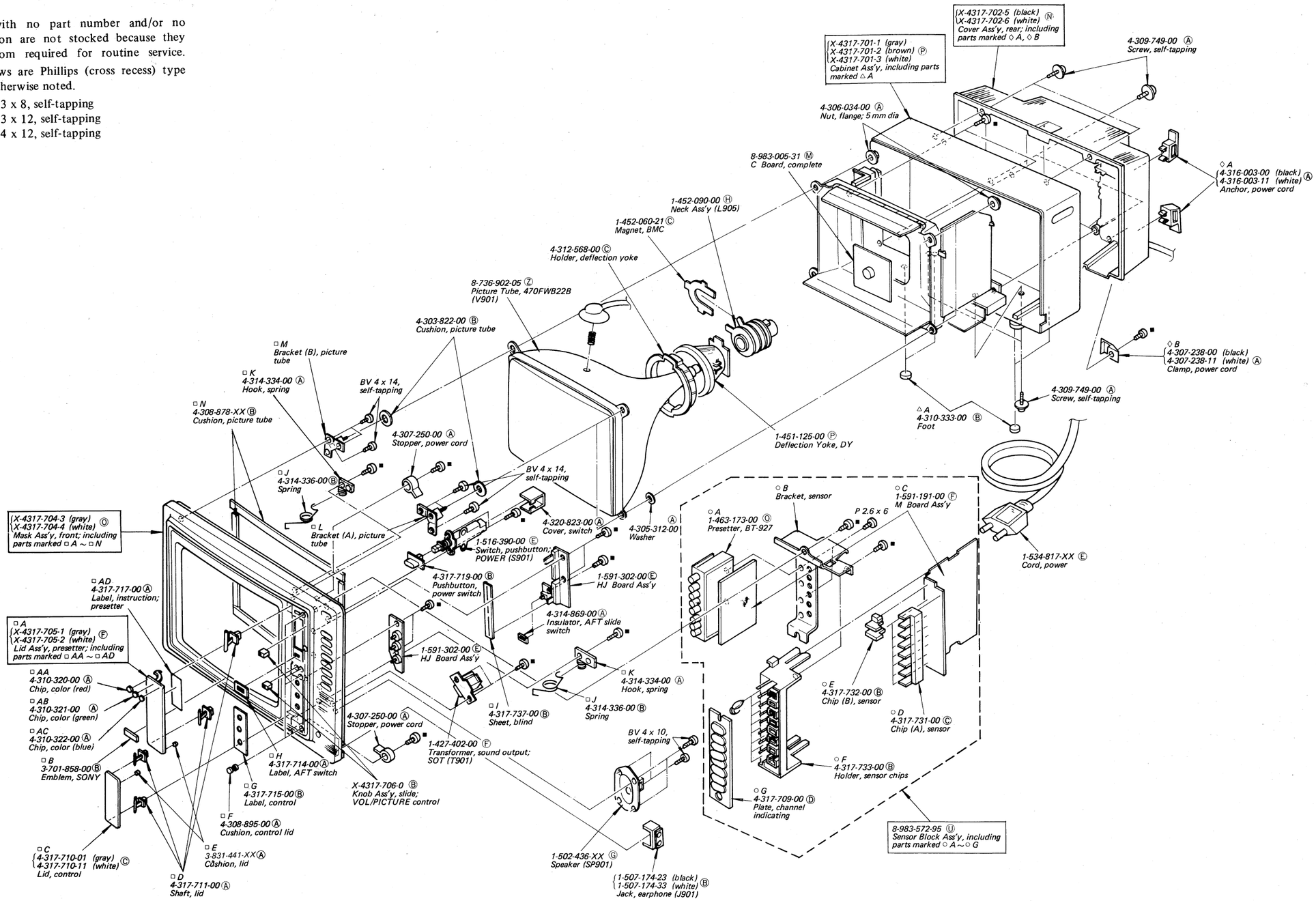
MEMO


IC202 M5135P
AFT
IC203 CX095C
SIF
Q207 2SC926A Q209 2SC1962
AF AMP
AF OUT-2
REG
DISCRI
DC AMP
IF AMP
FM DET
SIF
AF DRIVE
VOLUME
MIN~MAX
0.7~12V
H
J
V901
PICTURE
TUBE
470FWB22B
25.5 KV at zero beam current
BRIGHTNESS
COLOR
CONT
PICTURE
BIAS
IC301 CX108
CHROMA Y-AMP
Q301 2SC634A
ABL
D304,305
IT40
BURST SW
Q306
2SC634A
BURST GATE
IC302
CX109
DEMOD
Q211
2SC634A
15V REG
IC201
2nd VIF
VIDEO DET DRIVE
VIDEO DET
SND DET DRIVE
SND DET
VIF AGC AMP
ANC
VIDEO DRIVE
U-V PHASE
U PHASE
A-1295-054-A
A-1330-096-A
FOCUS
SCRN
C
Q701
2SC1127
B OUT
Q702
2SC1127
G OUT
Q703
2SC1127
R OUT
B.DRIVE
G.DRIVE
R.DRIVE
D306
S1R80
-40V RECT
Q201 2SC1475
12V REG
Q303 2SC403C
CW OSC
D301 IT40
H PULSE CLIP
Q304 2SA677
SYNC SEP
Q307 2SC634A
ACC BALANCE
D302
IT40
V PULSE CLIP
Q305
2SA773
Y DRIVE
D303
S1B01-02
PROTECTOR
A-1345-103-A
D
E
Q516 2SA677
ETC
D801,802
HF1Z
H.CENT
D812 RD11E
PROTECT
D807
V11N
D813
HF1C
D804
S3A
D803
HF1
30V RECT
D806
S1D30-15
H.DAMPER
D805 S1B01-02
H.DRIVE
D809 EQA01-16R
D810 IT40
PROTECT
Q801
2SC634A
Q802
2SA678
Q901
SG613H
H.OUT
A-1345-104-A
DC851
H.STAT
ETC

SECTION 6
EXPLODED VIEWS

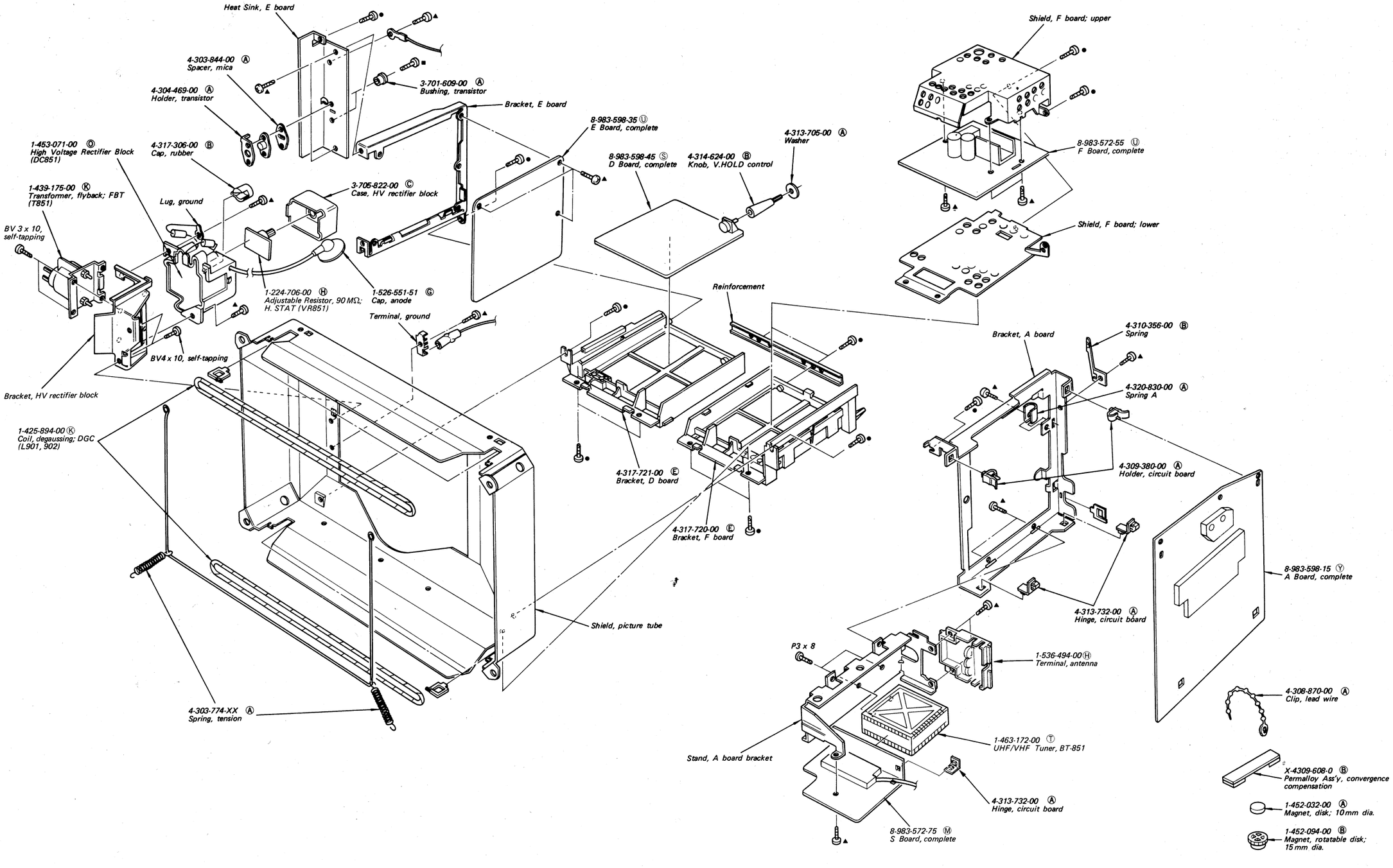
Note:

- Items with no part number and/or no description are not stocked because they are seldom required for routine service.
- All screws are Phillips (cross recess) type unless otherwise noted.
- ▲ : BV 3 x 8, self-tapping
  ■ : BV 3 x 12, self-tapping
  ● : BV 4 x 12, self-tapping



(2) A B C D E F G

1 2 3 4 5


Heat Sink, E board
4-303-844-00 Ⓐ Spacer, mica
4-304-469-00 Ⓐ Holder, transistor
3-701-609-00 Ⓐ Bushing, transistor
Bracket, E board
8-983-598-35 Ⓤ E Board, complete
1-453-071-00 Ⓒ High Voltage Rectifier Block (DC851)
4-317-306-00 Ⓑ Cap, rubber
8-983-598-45 Ⓢ D Board, complete
4-314-624-00 Ⓑ Knob, V.HOLD control
4-313-705-00 Ⓐ Washer
1-439-175-00 Ⓚ Transformer, flyback; FBT (T851)
3-705-822-00 Ⓒ Case, HV rectifier block
Lug, ground
BV 3 x 10, self-tapping
1-224-706-00 Ⓗ Adjustable Resistor, 90 MΩ; H. STAT (VR851)
1-526-551-51 Ⓖ Cap, anode
Terminal, ground
BV4 x 10, self-tapping
Bracket, HV rectifier block
Reinforcement
1-425-894-00 Ⓚ Coil, degaussing; DGC (L901, 902)
4-317-721-00 Ⓔ Bracket, D board
4-317-720-00 Ⓔ Bracket, F board
Shield, picture tube
4-303-774-XX Ⓐ Spring, tension
Shield, F board; upper
8-983-572-55 Ⓤ F Board, complete
Shield, F board; lower
Bracket, A board
4-310-356-00 Ⓑ Spring
4-320-830-00 Ⓐ Spring A
4-309-380-00 Ⓐ Holder, circuit board
8-983-598-15 Ⓨ A Board, complete
4-313-732-00 Ⓐ Hinge, circuit board
P3 x 8
1-536-494-00 Ⓗ Terminal, antenna
4-308-870-00 Ⓐ Clip, lead wire
Stand, A board bracket
1-463-172-00 Ⓣ UHF/VHF Tuner, BT-851
X-4309-608-0 Ⓑ Permalloy Ass'y, convergence compensation
4-313-732-00 Ⓐ Hinge, circuit board
1-452-032-00 Ⓐ Magnet, disk; 10 mm dia.
8-983-572-75 Ⓜ S Board, complete
1-452-094-00 Ⓑ Magnet, rotatable disk; 15 mm dia.

SECTION 7
ELECTRICAL PARTS LIST

Ref. No.	Part No.	Description
		TUNERS AND CIRCUIT BOARDS
	1-463-172-00	(T) UHF/VHF Tuner, BT-851
	1-463-173-00	(O) Presetter, BT-927
	1-591-191-00	(F) M Board Ass'y
	1-591-302-00	(E) HJ Board
	8-983-005-31	(M) C Board, complete
	8-983-572-55	(U) F Board, complete
	8-983-572-75	(M) S Board, complete
	8-983-572-95	(U) Sensor Block Ass'y
		including;
	1-463-173-00	(O) Presetter, BT-927
	1-591-191-00	(F) M Board Ass'y
	4-317-709-00	(D) Plate, channel indicating
	4-317-731-00	(C) Chip (A), sensor
	4-317-732-00	(B) Chip (B), sensor
	4-317-733-00	(B) Holder, sensor chips
	8-983-598-15	(Y) A Board, complete
	8-983-598-35	(U) E Board, complete
	8-983-598-45	(S) D Board, complete
		SEMICONDUCTORS
		Transistors
Q111		(B) 2SC403C
Q112		(B) 2SC1363
Q113		(B) 2SC634A
Q114		(C) 2SA677
Q115		(B) 2SC1363
Q116		(B) 2SC634A
Q201		(C) 2SC1475
Q203, 204		(B) 2SC633A
Q205		(C) 2SA677
Q206		(C) 2SK23A
Q207		(C) 2SC926A
Q208		(E) 2SA920
Q209		(E) 2SC1962
Q210, 211		(B) 2SC634A
Q301		(B) 2SC634A
Q302, 303		(B) 2SC403C

Ref. No.	Part No.	Description
Q304		(C) 2SA677
Q305		(C) 2SA773
Q306, 307		(B) 2SC634A
Q501		(C) 2SC1670
Q502		(D) 2SC1663
Q503		(E) 2SA835
Q507		(B) 2SC945
Q508		(C) 2SC1670
Q509		(C) 2SA677
Q510		(E) 2SC1810
Q512		(C) 2SA677
Q513		(C) 2SC1124
Q516		(C) 2SA677
Q601, 602		(C) 2SA677
Q603		(B) 2SC945
Q604, 605		(B) 2SC634A
Q606		(C) 2SC1670
Q607		(K) 2SC1413
Q608		(B) 2SC945
Q701 ~ 703		(D) 2SC1127
Q801		(B) 2SC634A
Q802		(C) 2SA678
Q901		(K) SG613H
		Diodes
D111		(E) μPC574J
D114		(B) SIB01-02
D153		(E) μPC574J
D301, 302		(B) 1T40
D303		(B) SIB01-02
D304, 305		(B) 1T40
D306		(B) S1R80
D307		(B) 1T40
D401		(B) 1T40
D451		(B) 1T22A
D501		(B) 1T40

Ref. No.	Part No.	Description
D502		Ⓑ SIB01-02
D503		Ⓑ 1T40
D504～507		Ⓑ SIB01-02
D508		Ⓑ 1T40
D601～604		Ⓒ U05G
D605		Ⓑ EQB01-12R
D606, 607		Ⓑ 1T40
D609		Ⓑ HF1Z
D610		Ⓒ S34
D611		Ⓑ HF1Z
D612		Ⓑ 1T40
D613		Ⓑ HF1C
D614		Ⓑ HF1Z
D615		Ⓒ EQA01-12R
D801, 802		Ⓑ HF1Z
D803		Ⓑ HF1
D804		Ⓒ S34
D805		Ⓑ SIB01-02
⇒D806		Ⓓ GH3F
D807		Ⓒ V11N
D808		Ⓑ HF1A
D809		Ⓑ EQA01-16R
D810		Ⓑ 1T40
D812		Ⓑ RD11E
D813		Ⓑ HF1C
		ICs
IC151		Ⓖ SN94041N
IC152		Ⓖ SN94043N
IC153		Ⓖ SN94042N
IC154		Ⓖ SN94043N
IC201		Ⓗ CX100D
IC202		Ⓗ M5135P
IC203		Ⓕ CX095C
IC301		Ⓚ CX108
IC302		Ⓚ CX109
IC501		Ⓕ CX157
IC502		Ⓕ CX158

Ref. No.	Part No.	Description
		Miscellaneous
PR601	1-800-362-00	Ⓔ Thermistor (positive)
⇒Th201, 202	1-800-198-XX	Ⓐ Thermistor, S-1250
⇒Th501	1-800-070-XX	Ⓐ Thermistor, TH-4700
Th601	1-800-356-00	Ⓔ Thermistor
Th602, 603	1-800-070-XX	Ⓐ Thermistor, TH-4700
		COILS
		All coils are microinductors unless otherwise noted.
L151, 152	1-407-213-XX	Ⓑ 1.5 mH
L153～155	1-407-195-XX	Ⓑ 1 mH
L201	1-407-184-XX	Ⓐ 3.3 μH
L202	1-407-171-XX	Ⓐ 150 μH
L204	1-407-684-00	Ⓐ 1.8 μH
L205, 206	1-407-189-XX	Ⓐ 8.2 μH
L207	1-407-157-XX	Ⓐ 10 μH
L208	1-407-189-XX	Ⓐ 8.2 μH
L209, 210	1-407-187-XX	Ⓐ 5.6 μH
L211	1-407-188-XX	Ⓐ 6.8 μH
L301	1-407-178-XX	Ⓐ 1 μH
L302	1-407-706-00	Ⓐ 120 μH
L303	1-407-167-XX	Ⓐ 68 μH
L304	1-407-165-XX	Ⓐ 47 μH
L306	1-407-208-XX	Ⓑ 15 mH
L307	1-407-189-XX	Ⓐ 8.2 μH
L308～310	1-407-165-XX	Ⓐ 47 μH
L501	1-407-207-XX	Ⓑ 12 mH
L502	1-443-012-00	Ⓑ Dynamic Convergence Choke, DCC-V
L503	1-407-207-XX	Ⓑ 12 mH
L504	1-407-556-00	Ⓑ 6.8 μH, spook choke
L505, 506	1-407-364-00	Ⓑ 3.3 μH, spook choke
L601	1-407-188-XX	Ⓐ 6.8 μH
L602	1-421-249-00	Ⓒ 68 μH, spook choke

⇒: Due to parts standardization, the descriptions listed are different from the descriptions shown in the diagrams.

Ref. No.	Part No.	Description
L603	1-407-556-00	(B) 6.8 μH, spook choke
L604	1-407-720-00	(B) 100 μH, spook choke
L605	1-407-365-00	(A) 0.74 μH, spook choke
L701	1-407-712-00	(A) 390 μH
L801	1-459-075-00	(B) Dynamic Convergence Choke, DCC
L802	1-459-148-00	(C) Horizontal Centering Choke, HCC
L803	1-459-147-00	(E) Horizontal Linearity, HLC
L804	1-407-364-00	(B) Spook Choke
L805	1-407-780-00	(B) 3.3 μH, spook choke
L806	1-407-365-00	(A) 0.74 μH, spook choke
L807	1-413-027-00	(F) Sine Resonance, SRC
L808	1-407-364-00	(B) 3.3 μH, spook choke
L901, 902	1-425-894-00	(K) Degaussing, DGC
L903	1-451-125-00	(P) Deflection Yoke, DY
L905	1-452-090-00	(H) Neck Ass'y
DL301	1-415-101-00	(D) Delay Line
DL302	1-415-075-00	(K) Delay Line, 1H

TRANSFORMERS

CF201	1-527-263-00	(B) Ceramic Filter, 5.5 MHz
T111	1-403-927-00	(B) IFT-1
T112	1-403-907-00	(B) IFT-2
T201	1-409-225-00	(B) VIFT-T1, 33.4 MHz trap
T202	1-425-613-00	(B) VIFT-1
T203	1-409-270-00	(B) VIFT-T2, 31.9 MHz trap
T204	1-409-214-00	(B) VIFT-T3, 40.4 MHz trap
T205	1-403-947-00	(B) VIFT-2
T206	1-404-047-00	(B) VIFT-3
T207	1-404-046-00	(B) VIFT-4
T208	1-409-294-00	(C) VIFT-T4, 33.4 MHz trap
T209	1-404-044-00	(B) VIFT-5
T210	1-404-045-00	(B) VIFT-6
T211	1-409-235-00	(B) 5.5 MHz, sound trap
T213	1-403-843-00	(B) SIFT-2
T214	1-409-269-00	(B) VIFT-T5, 42.5 MHz trap
T215	1-404-048-00	(B) AFT-3
T217	1-403-810-00	(B) AFT-1
T218	1-403-811-00	(B) AFT-2
T301	1-425-784-00	(B) Take-off, TOT
T302	1-409-193-00	(B) 4.43 MHz Trap
T303	1-405-733-00	(B) APC
T304	1-425-927-00	(C) Bandpass, BPT
T305	1-425-928-00	(B) Delay Adjustment, CWT
T306	1-425-928-00	(B) Delay Adjustment, DAT
T601	1-413-028-00	(K) Switching Regulator, SRT
T602	1-437-066-00	(C) Regulator Drive, RDT
T603	1-441-855-00	(C) Heater, HT
T801	1-439-176-00	(J) Horizontal Output, HOT
T802	1-421-320-00	(J) Pincushion Correction, PCT
T803	1-437-065-00	(C) Horizontal Drive, HDT
T851	1-439-175-00	(K) Flyback, FBT
T901	1-427-402-00	(F) Sound Output, SOT

CAPACITORS

All capacitors are in μF and ceramic unless otherwise noted.
50 WV or less are not indicated except for electrolytics.
pF = μμF, elect = electrolytic

C101	1-121-395-11	(A) 4.7	25 V	elect
C102	1-108-638-12	(B) 0.1	100 V	mylar
C103	1-121-395-11	(A) 4.7	25 V	elect
C111	1-102-887-11	(A) 47 p		
C112	1-121-654-11	(B) 330	25 V	elect
C113	1-102-884-11	(A) 33 p		
C114～118	1-102-125-11	(A) 0.0047		
C119	1-108-642-12	(B) 0.22	100 V	mylar
C120	1-121-416-11	(B) 100	25 V	elect
C121	1-121-404-11	(A) 33	25 V	elect
C122	1-121-398-11	(A) 10	25 V	elect
C123	1-102-889-11	(A) 39 p		
C124	1-102-125-11	(A) 0.0047		
C126	1-121-404-11	(A) 33	25 V	elect
C127	1-102-858-11	(A) 10 p		
C152～155	1-101-004-11	(A) 0.01		

Ref. No.	Part No.	Description		
C156	1-121-395-11	Ⓐ 4.7	25 V	elect
C158～161	1-101-004-11	Ⓐ 0.01		
C162	1-101-006-11	Ⓐ 0.047		
C163	1-108-626-12	Ⓐ 0.01	100 V	mylar
C166～168	1-101-004-11	Ⓐ 0.01		
C169～176	1-101-003-11	Ⓐ 0.0047		
C177	1-101-004-11	Ⓐ 0.01		
C178	1-121-410-11	Ⓑ 47	25 V	elect
C179	1-121-726-11	Ⓐ 0.47	50 V	elect
C180	1-121-450-11	Ⓐ 2.2	50 V	elect
C205	1-102-936-11	Ⓐ 3 p		
C206	1-102-529-11	Ⓐ 100 p		
C207	1-102-884-11	Ⓐ 33 p		
C208	1-102-125-11	Ⓐ 0.0047		
C209, 210	1-102-527-11	Ⓐ 82 p		
C211	1-121-651-11	Ⓐ 10	16 V	elect
C212	1-102-125-11	Ⓐ 0.0047		
C213	1-121-404-11	Ⓐ 33	25 V	elect
C214, 215	1-102-125-11	Ⓐ 0.0047		
C216	1-102-973-11	Ⓐ 100 p		
C217	1-121-651-11	Ⓐ 10	16 V	elect
C218	1-102-125-11	Ⓐ 0.0047		
C219	1-102-973-11	Ⓐ 100 p		
C220	1-102-663-11	Ⓐ 8 p		
C221	1-102-858-11	Ⓐ 10 p		
C222～225	1-102-125-11	Ⓐ 0.0047		
C226	1-121-409-11	Ⓐ 47	16 V	elect
C227	1-121-398-11	Ⓐ 10	25 V	elect
C228	1-102-125-11	Ⓐ 0.0047		
C229	1-121-450-11	Ⓐ 2.2	50 V	elect
C230	1-108-630-12	Ⓐ 0.022	100 V	mylar
C231	1-102-114-11	Ⓐ 470 p		
C232	1-121-391-11	Ⓐ 1	50 V	elect
C233	1-102-074-11	Ⓐ 0.001		
C234	1-102-125-11	Ⓐ 0.0047		
C235	1-121-426-11	Ⓑ 470	16 V	elect
C236	1-101-006-11	Ⓐ 0.047		
C237	1-102-125-11	Ⓐ 0.0047		
C238	1-101-006-11	Ⓐ 0.047		

Ref. No.	Part No.	Description		
C239	1-101-884-11	Ⓐ 56 p		
C240	1-102-667-11	Ⓐ 13 p		
C241	1-102-074-11	Ⓐ 0.001		
C242	1-108-638-12	Ⓑ 0.1	100 V	mylar
C243	1-101-361-11	Ⓐ 150 p		
C244	1-121-651-11	Ⓐ 10	16 V	elect
C245	1-121-391-11	Ⓐ 1	50 V	elect
C246	1-108-624-12	Ⓐ 0.0068	100 V	mylar
C247	1-121-726-11	Ⓐ 0.47	50 V	elect
C248	1-101-361-11	Ⓐ 150 p		
C249	1-102-882-11	Ⓐ 4 p		
C250	1-102-112-11	Ⓐ 330 p		
C251	1-121-450-11	Ⓐ 2.2	50 V	elect
C252	1-101-810-11	Ⓐ 100 p	500 V	
C253	1-121-757-11	Ⓑ 33	160 V	elect
C254	1-102-043-11	Ⓐ 0.001	500 V	
C255, 256	1-102-125-11	Ⓐ 0.0047		
C257	1-101-576-11	Ⓐ 1.5 p		
C258	1-102-525-11	Ⓐ 68 p		
C259	1-102-774-11	Ⓐ 47 p		
C260	1-121-393-11	Ⓐ 3.3	50 V	elect
C261～266	1-102-125-11	Ⓐ 0.0047		
C267	1-121-999-11	Ⓑ 10	160 V	elect
C268	1-108-632-12	Ⓐ 0.033	100 V	mylar
C269	1-121-395-11	Ⓐ 4.7	25 V	elect
C270	1-121-409-11	Ⓐ 47	16 V	elect
C271	1-121-410-11	Ⓑ 47	25 V	elect
C272	1-101-004-11	Ⓐ 0.01		
C273	1-121-398-11	Ⓐ 10	25 V	elect
C301	1-102-889-11	Ⓐ 39 p		
C302	1-101-004-11	Ⓐ 0.01		
C303, 304	1-102-662-11	Ⓐ 7 p		
C305	1-121-392-11	Ⓐ 3.3	25 V	elect
C306	1-121-651-11	Ⓐ 10	16 V	elect
C307	1-101-888-11	Ⓐ 68 p		
C308	1-121-391-11	Ⓐ 1	50 V	elect
C310	1-102-670-11	Ⓐ 18 p		
C311	1-121-391-11	Ⓐ 1	50 V	elect

Ref. No.	Part No.	Description		
C312	1-101-006-11	Ⓐ 0.047		
C313	1-102-668-11	Ⓐ 15 p		
C314, 315	1-101-004-11	Ⓐ 0.01		
C316	1-121-726-11	Ⓐ 0.47	50 V	elect
C317	1-101-006-11	Ⓐ 0.047		
C318	1-101-004-11	Ⓐ 0.01		
C319～321	1-121-391-11	Ⓐ 1	50 V	elect
C323	1-101-361-11	Ⓐ 150 p		
C324	1-101-004-11	Ⓐ 0.01		
C325	1-102-512-11	Ⓐ 16 p		
C326	1-102-700-11	Ⓐ 82 p		
C327, 328	1-108-624-12	Ⓐ 0.0068	100 V	mylar
C329, 330	1-121-726-11	Ⓐ 0.47	50 V	elect
C331	1-121-391-11	Ⓐ 1	50 V	elect
C332	1-108-630-12	Ⓐ 0.022	100 V	mylar
C333	1-108-616-12	Ⓐ 0.0015	100 V	mylar
C334, 335	1-121-391-11	Ⓐ 1	50 V	elect
C336	1-102-824-11	Ⓐ 470 p		
C337	1-102-822-11	Ⓐ 390 p		
C338	1-101-006-11	Ⓐ 0.047		
C339	1-121-651-11	Ⓐ 10	16 V	elect
C340	1-121-410-11	Ⓑ 47	25 V	elect
C341	1-102-892-11	Ⓐ 22 p		
C342	1-102-676-11	Ⓐ 68 p		
C343	1-101-006-11	Ⓐ 0.047		
C345	1-121-416-11	Ⓑ 100	25 V	elect
C346～348	1-102-980-11	Ⓐ 270 p		
C349	1-101-004-11	Ⓐ 0.01		
C350	1-108-626-11	Ⓐ 0.01	100 V	mylar
C351	1-121-391-11	Ⓐ 1	50 V	elect
C353	1-102-233-11	Ⓐ 33 p	500 V	
C354	1-101-006-11	Ⓐ 0.047		
C359	1-121-391-11	Ⓐ 1	50 V	elect
C361	1-101-006-11	Ⓐ 0.047		
C362	1-102-959-11	Ⓐ 22 p		
C401	1-121-395-11	Ⓐ 4.7	25 V	elect
C402	1-121-391-11	Ⓐ 1	50 V	elect
C451	1-121-806-11	Ⓑ 10	16 V	elect

Ref. No.	Part No.	Description		
C501	1-121-391-11	Ⓐ 1	50 V	elect
C502, 503	1-108-622-12	Ⓐ 0.0047	100 V	mylar
C504	1-121-245-11	Ⓑ 1000	16 V	elect
C505	1-108-630-12	Ⓐ 0.022	100 V	mylar
C506	1-108-638-12	Ⓑ 0.1	100 V	mylar
C507	1-102-125-11	Ⓐ 0.0047		
C508	1-121-738-11	Ⓐ 10	50 V	elect
C509	1-108-692-12	Ⓐ 0.01	200 V	mylar
C510	1-123-174-11	Ⓒ 4.7	160 V	elect
C511	1-108-692-12	Ⓐ 0.022	200 V	mylar
C512	1-121-479-11	Ⓐ 22	16 V	elect
C513	1-121-810-11	Ⓒ 470	50 V	elect
C514	1-108-642-12	Ⓑ 0.22	100 V	mylar
C515	1-108-638-12	Ⓑ 0.1	100 V	mylar
C516, 517	1-108-630-12	Ⓐ 0.022	100 V	mylar
C518	1-108-634-12	Ⓐ 0.047	100 V	mylar
C519	1-108-614-12	Ⓐ 0.001	100 V	mylar
C520	1-121-391-11	Ⓐ 1	50 V	elect
C521	1-101-810-11	Ⓐ 100 p	500 V	
C522	1-108-632-12	Ⓐ 0.033	100 V	mylar
C523	1-108-694-12	Ⓐ 0.015	200 V	mylar
C524	1-121-391-11	Ⓐ 1	50 V	elect
C525	1-121-970-11	Ⓐ 47	16 V	elect
C526	1-121-953-11	Ⓐ 3.3	50 V	elect
C527	1-108-630-12	Ⓐ 0.022	100 V	mylar
C528	1-108-623-12	Ⓐ 0.0056	100 V	mylar
C529	1-108-630-12	Ⓐ 0.022	100 V	mylar
C530	1-121-392-11	Ⓐ 3.3	25 V	elect
C531	1-129-927-11	Ⓑ 0.015	100 V	polyethylene
C532	1-121-395-11	Ⓐ 4.7	25 V	elect
C533	1-106-188-51	Ⓐ 0.0047	100 V	mylar
C534	1-102-832-11	Ⓐ 330 p		
C535	1-108-638-12	Ⓑ 0.1	100 V	mylar
C536	1-101-810-11	Ⓐ 100 p	500 V	
C537	1-121-955-11	Ⓑ 10	50 V	elect
C538	1-121-971-11	Ⓑ 100	16 V	elect
C539	1-121-416-11	Ⓑ 100	25 V	elect
C540	1-108-704-12	Ⓑ 0.1	200 V	mylar
C541	1-121-409-11	Ⓐ 47	16 V	elect

Ref. No.	Part No.	Description		
C542	1-121-425-11	Ⓑ 470	10 V	elect
C543	1-121-391-11	Ⓐ 1	50 V	elect
C544	1-102-233-11	Ⓐ 33 p	500 V	
C545	1-102-975-11	Ⓐ 100 p		
C547	1-121-726-11	Ⓐ 0.47	50 V	elect
C549	1-102-030-11	Ⓐ 330 p	500 V	
C550	1-101-001-11	Ⓐ 0.001		
C551	1-121-391-11	Ⓐ 1	50 V	elect
C601	1-108-745-12	Ⓔ 0.22	300 V	mylar
C602～605	1-102-085-11	Ⓐ 0.0047	500 V	
C606	1-123-128-11	Ⓕ 120	400 V	elect
C607	1-102-050-11	Ⓐ 0.01	500 V	
C608	1-102-030-11	Ⓐ 330 p	500 V	
C609	1-121-726-11	Ⓐ 0.47	50 V	elect
C610	1-121-419-11	Ⓑ 220	6.3 V	elect
C612	1-121-392-11	Ⓐ 3.3	25 V	elect
C613	1-108-694-12	Ⓐ 0.015	200 V	mylar
C614	1-130-017-11	Ⓐ 820 p	50 V	polyethylene
C615	1-130-026-11	Ⓑ 0.0047	50 V	polyethylene
C616	1-108-630-12	Ⓐ 0.022	100 V	mylar
C617	1-102-989-11	Ⓐ 68 p	500 V	
C618	1-101-001-11	Ⓐ 0.001		
C619	1-102-106-11	Ⓐ 100 p		
C620	1-123-024-11	Ⓑ 33	160 V	elect
C621	1-123-128-11	Ⓕ 120	400 V	elect
C622	1-102-050-11	Ⓐ 0.01	500 V	
C623	1-102-030-11	Ⓐ 330 p	500 V	
C624	1-102-327-11	Ⓑ 330 p	1.5 kV	
C626	1-121-416-11	Ⓑ 100	25 V	elect
C627	1-130-007-11	Ⓓ 0.47	400 V	polyethylene
C628	1-102-989-11	Ⓐ 68 p	500 V	
C629	1-102-002-11	Ⓐ 680 p	500 V	
C701, 702	1-101-361-11	Ⓐ 150 p		
C703	1-102-980-11	Ⓐ 270 p		
C704	1-129-779-11	Ⓑ 0.022	1 kV	polyethylene
C705	1-108-704-12	Ⓑ 0.1	200 V	mylar
C706	1-102-030-11	Ⓐ 330 p	500 V	

Ref. No.	Part No.	Description		
C801	1-108-640-12	Ⓑ 0.15	100 V	mylar
C802, 803	1-123-173-11	Ⓑ 100	16 V	elect
C804	1-101-455-11	Ⓐ 0.001		
C805, 806	1-108-626-12	Ⓐ 0.01	100 V	mylar
C807	1-121-656-11	Ⓑ 330	50 V	elect
C808	1-130-037-11	Ⓓ 0.51	400 V	polyethylene
C809	1-123-024-11	Ⓑ 33	160 V	elect
C810	1-108-632-12	Ⓐ 0.033	100 V	mylar
C811	1-108-626-12	Ⓐ 0.01	100 V	mylar
C812	1-102-154-11	Ⓐ 180 p	2 kV	
C813	1-129-924-11	Ⓒ 0.016	1.5 kV	polyethylene
C814	1-130-041-11	Ⓒ 0.027	1 kV	polyethylene
C815	1-130-042-11	Ⓒ 0.069	1 kV	polyethylene
C816	1-121-759-11	Ⓑ 4.7	250 V	elect
C817	1-129-953-11	Ⓔ 0.068	1.5 kV	polyethylene
C821	1-108-638-12	Ⓑ 0.1	100 V	mylar
C822	1-102-327-11	Ⓑ 330 p	1.5 kV	
C823	1-102-038-11	Ⓐ 0.001	500 V	
C824	1-102-030-11	Ⓐ 330 p	500 V	
C825	1-101-006-11	Ⓐ 0.047		
C826	1-102-155-11	Ⓐ 330 p	2 kV	
C827	1-121-759-11	Ⓑ 4.7	250 V	elect
C901	1-102-327-11	Ⓑ 330 p	1.5 kV	
CV201	1-141-138-XX	Ⓑ 8 p		trimmer

RESISTORS

All resistors are in ohms. Common ¼ W carbon resistors are not indicated. Check schematic diagram for values.
All variable and adjustable resistors have characteristic curve B unless otherwise noted. kΩ = 1000 Ω, MΩ = 1000 kΩ

R122	1-244-861-11	Ⓐ 330	½ W	carbon
R127	1-206-690-11	Ⓐ 12 k	2 W	metal oxide (nonflammable)
R130	1-244-841-11	Ⓐ 47	½ W	carbon
R151～159	1-244-965-11	Ⓐ 5.6 M	½ W	carbon
R171	1-206-692-11	Ⓐ 15 k	2 W	metal oxide (nonflammable)

Ref. No.	Part No.	Description
R226	1-213-124-11 Ⓐ 27	1 W metal oxide (nonflammable)
R232	1-244-861-11 Ⓐ 330	½ W carbon
R240	1-244-859-11 Ⓐ 270	½ W carbon
R251, 252	1-244-837-11 Ⓐ 33	½ W carbon
R253	1-211-528-11 Ⓐ 180	¼ W carbon (nonflammable)
R256	1-206-479-11 Ⓐ 47	2 W metal oxide (nonflammable)
R259	1-211-498-11 Ⓐ 10	¼ W carbon (nonflammable)
R346	1-244-907-11 Ⓐ 27 k	½ W carbon
R352	1-244-869-11 Ⓐ 680	½ W carbon
R509	1-206-656-11 Ⓐ 470	2 W metal oxide (nonflammable)
R510	1-211-929-11 Ⓐ 82	⅛ W carbon (nonflammable)
R511	1-244-875-11 Ⓐ 1.2 k	½ W carbon
R512	1-211-930-11 Ⓐ 33	⅛ W carbon (nonflammable)
R514, 515	1-212-361-11 Ⓐ 1.2	1 W metal oxide (nonflammable)
R520	1-212-360-11 Ⓐ 1	
R521	1-213-140-11 Ⓐ 560	
R522	1-213-142-11 Ⓐ 820	
R534	1-244-875-11 Ⓐ 1.2 k	½ W carbon
R535	1-244-837-11 Ⓐ 33	
R537	1-244-873-11 Ⓐ 1 k	
R539	1-244-865-11 Ⓐ 470	
R542	1-244-905-11 Ⓐ 22 k	
R551	1-244-873-11 Ⓐ 1 k	
R561	1-213-130-11 Ⓐ 82	1 W metal oxide (nonflammable)
R578	1-206-642-11 Ⓐ 120	2 W
R579	1-206-485-11 Ⓐ 82	2 W
R580, 581	1-213-136-11 Ⓐ 270	1 W metal oxide (nonflammable)
R591	1-213-138-11 Ⓐ 390	
R596	1-202-636-11 Ⓐ 430 k	½ W composition
R601	1-217-318-11 Ⓑ 470	5 W wirewound (nonflammable)

Ref. No.	Part No.	Description
R602	1-217-328-11 Ⓑ 2.7	7 W wirewound (nonflammable)
R604, 605	1-213-163-11 Ⓐ 47 k	1 W metal oxide (nonflammable)
R606	1-202-655-11 Ⓐ 2.7 M	½ W composition
R607	1-206-700-11 Ⓐ 33 k	2 W metal oxide (nonflammable)
R609	1-213-163-11 Ⓐ 47 k	1 W
R617	1-206-896-11 Ⓑ 33 k	8 W
R628	1-212-360-11 Ⓐ 1	1 W
R634	1-210-859-11 Ⓐ 1.2	⅛ W carbon (nonflammable)
R635	1-244-917-11 Ⓐ 68 k	½ W carbon
※ R637	1-244-708-11 Ⓐ 30 k	¼ W carbon
	1-244-709-11 Ⓐ 33 k	
	1-244-710-11 Ⓐ 36 k	
	1-244-711-11 Ⓐ 39 k	
	1-244-712-11 Ⓐ 43 k	
	1-244-713-11 Ⓐ 47 k	
	1-244-714-11 Ⓐ 51 k	
	1-244-715-11 Ⓐ 56 k	
	1-244-718-11 Ⓐ 75 k	
R638	1-210-859-11 Ⓐ 1.2	⅛ W carbon (nonflammable)
R639	1-212-361-11 Ⓐ 1.2	1 W metal oxide (nonflammable)
R641	1-213-163-11 Ⓐ 47 k	
R710～712	1-206-692-11 Ⓐ 15 k	2 W metal oxide (nonflammable)
R713～715	1-202-585-11 Ⓐ 3.3 k	½ W composition
R716	1-202-629-11 Ⓐ 220 k	
R717	1-202-639-11 Ⓐ 560 k	
R718	1-202-543-11 Ⓐ 56	
R719	1-202-637-11 Ⓐ 470 k	
R720	1-202-633-11 Ⓐ 330 k	
R721	1-202-619-11 Ⓐ 82 k	½ W composition
R722	1-202-645-11 Ⓐ 1 M	
R723	1-207-451-11 Ⓐ 0.1	½ W wirewound (nonflammable)
R724	1-202-639-11 Ⓐ 560 k	½ W composition
R801	1-206-473-11 Ⓐ 27	2 W metal oxide (nonflammable)
R802	1-206-642-11 Ⓐ 120	

※ : selected to yield optimum performance.

Ref. No.	Part No.	Description
R803	1-210-859-11 Ⓐ 1.2	1/8 W carbon
R805	1-210-860-11 Ⓐ 1.2	1/4 W (nonflammable)
R807	1-205-532-11 Ⓑ 3.3	10 W cement coated (nonflammable)
R808	1-211-421-11 Ⓐ 39	1/8 W carbon (nonflammable)
R809, 810	1-206-475-11 Ⓐ 33	2 W metal oxide (nonflammable)
R811	1-244-859-11 Ⓐ 270	1/2 W carbon
R812	1-206-469-11 Ⓐ 18	2 W metal oxide (nonflammable)
R813	1-217-287-11 Ⓑ 1.2	5 W wirewound (nonflammable)
R814	1-202-631-11 Ⓐ 270 k	1/2 W composition
R816	1-206-676-11 Ⓐ 3.3 k	2 W metal oxide (nonflammable)
R817	1-211-945-11 Ⓐ 2.2 k	1/4 W carbon (nonflammable)
R818	1-244-897-11 Ⓐ 10 k	1/2 W carbon
R820	1-206-696-11 Ⓐ 22 k	2 W metal oxide
R821	1-213-150-11 Ⓐ 3.9 k	1 W (nonflammable)
※ R822	1-244-698-11 Ⓐ 11 k 1-244-700-11 Ⓐ 13 k 1-244-701-11 Ⓐ 15 k 1-244-703-11 Ⓐ 18 k 1-244-705-11 Ⓐ 22 k 1-224-707-11 Ⓐ 27 k	1/4 W carbon
R851	1-202-776-11 Ⓐ 1 k	1 W
R852	1-202-589-11 Ⓐ 4.7 k	1/2 W composition
R853	1-202-784-11 Ⓐ 4.7 k	1 W
※ R904	1-207-457-11 Ⓐ 0.33 1-207-462-11 Ⓐ 0.82 1-207-465-11 Ⓐ 1.5 1-207-469-11 Ⓐ 3.3	1/2 W wirewound
VR201	1-224-640-XX Ⓑ 330, adjustable; U. AGC	
VR202	1-224-642-XX Ⓑ 1 k, adjustable; V. AGC	
⇒VR203	1-224-644-XX Ⓑ 4.7 k, adjustable; TU. AGC	
VR301	1-224-642-XX Ⓑ 1 k, adjustable; U-V PHASE	
VR302	1-224-640-XX Ⓑ 330, adjustable; SMB	

※ :selected to yield optimum performance.

⇒: Due to standardization, interchangeable replacements may be substituted for parts specified in the diagrams.

Ref. No.	Part No.	Description
VR303	1-224-644-XX Ⓑ 4.7 k, adjustable; ACC	
VR304	1-224-643-XX Ⓑ 2.2 k, adjustable; U-PHASE	
VR305	1-221-389-XX Ⓑ 5 k, adjustable; B. BKG	
VR306	1-221-389-XX Ⓑ 5 k, adjustable; G. BKG	
VR307	1-221-389-XX Ⓑ 5 k, adjustable; R. BKG	
VR401	1-224-713-00 Ⓓ 50 k-Z, variable; VOL	
VR402	1-224-712-00 Ⓔ 1 k, variable; PICTURE	
VR451	1-224-571-00 Ⓑ 5 k, variable; COLOR	
VR452	1-224-571-00 Ⓑ 5 k, variable; BRIGHTNESS	
VR453	1-224-555-00 Ⓑ 50 k-D, variable; TONE	
VR501	1-224-658-00 Ⓑ 20 k, variable; V. HOLD	
VR502	1-222-807-XX Ⓔ 20 k, adjustable; V. SIZE	
VR503	1-221-970-XX Ⓑ 500, adjustable; V. CENT	
VR504	1-221-390-XX Ⓑ 3 k, adjustable; H. SHIFT	
VR505	1-221-982-XX Ⓑ 250 k, adjustable; H. AMP	
VR506	1-224-646-XX Ⓑ 22 k, adjustable; H. FREQ	
VR507	1-221-390-XX Ⓑ 3 k, adjustable; Y. BOW	
VR508	1-224-645-XX Ⓑ 10 k, adjustable; PIN BIAS	
VR509	1-221-390-XX Ⓑ 3 k, adjustable; PIN AMP	
VR601	1-224-643-XX Ⓑ 2.2 k, adjustable; 135 V ADJ	
VR701	1-224-640-XX Ⓑ 330, adjustable; B. DRIVE	
VR702	1-224-640-XX Ⓑ 330, adjustable; G. DRIVE	
VR703	1-224-640-XX Ⓑ 330, adjustable; R. DRIVE	
VR704	1-224-812-00 Ⓒ 2.2 M, adjustable; FOCUS	
VR705	1-224-150-00 Ⓑ 1 M, adjustable; SCRN	
VR801	1-223-020-00 Ⓑ 50, adjustable; H. CENT	
VR851	1-224-706-00 Ⓗ 90 M, adjustable; H. STAT	

MISCELLANEOUS

DC851	1-453-071-00 Ⓞ	High Voltage Rectifier Block
F201	1-532-279-00 Ⓑ	Fuse, 0.5 AT
F601	1-532-237-00 Ⓑ	Fuse, 3.15 AT
J901	1-507-174-23 Ⓑ	Jack, earphone (black)
	1-507-174-33 Ⓑ	Jack, earphone (white)
NE151～158	1-519-108-XX Ⓑ	Lamp, neon
NE701, 702	1-519-127-00 Ⓑ	Lamp, neon

Ref. No.	Part No.	Description
S451	1-516-473-XX	Ⓒ Switch, AFT
S901	1-516-390-00	Ⓔ Switch, pushbutton; POWER
SG701～705, SG801	1-519-063-XX	Ⓑ Spark Gap, 1.5 kV
SP901	1-502-436-XX	Ⓖ Speaker
V901	8-736-902-05	Ⓩ Picture Tube, 470FWB22B
X301	1-527-274-00	Ⓖ Crystal

Ref. No.	Part No.	Description
	1-452-032-00	Ⓐ Magnet, disk; 10 mm dia
	1-452-060-21	Ⓒ Magnet, BMC
	1-452-094-00	Ⓑ Magnet, rotatable disk; 15 mm dia
	1-526-086-XX	Ⓑ Socket, picture tube
	1-526-551-51	Ⓖ Cap, anode
	1-533-087-00	Ⓐ Holder, fuse
	1-534-631-00	Ⓑ Coaxial Cable with Plug
	1-534-817-XX	Ⓔ Cord, power
	1-536-494-00	Ⓗ Terminal, antenna

PACKING MATERIALS AND ACCESSORIES

Part No.	Description
1-504-034-72	Ⓒ Earphone, ME-20E
3-701-329-00	Ⓐ Label, color (gray)
3-701-330-00	Ⓐ Label, color (white)
3-701-347-00	Ⓐ Label, color (brown)
3-701-352-00	Ⓐ Bag, polyethylene
4-312-321-00	Ⓒ Sheet, protection
4-316-238-00	Ⓐ Screwdriver, control

Part No.	Description
4-317-701-00	Ⓒ Cushion, left; upper
4-317-702-00	Ⓒ Cushion, right; upper
4-317-703-00	Ⓒ Cushion, left; lower
4-317-704-00	Ⓒ Cushion, right; lower
4-317-742-00	Ⓙ Carton
4-495-529-12	Ⓒ Manual, instruction

9-962-256-01

Sony Corporation
© 1976
7910210-4
Printed in Japan

TRINITRON®
COLOR TV

KV-1820EN

SUPPLEMENT

No. 1
January, 1977

Subject: Production Changes

The following changes are incorporated into all units bearing Serial No. shown below.

Cabinet Color	Applicable Serial No.
Gray	214,501 and later
White	202,001 and later
Wood	203,001 and later

File this supplement with the service manual.

1. INTRODUCTION

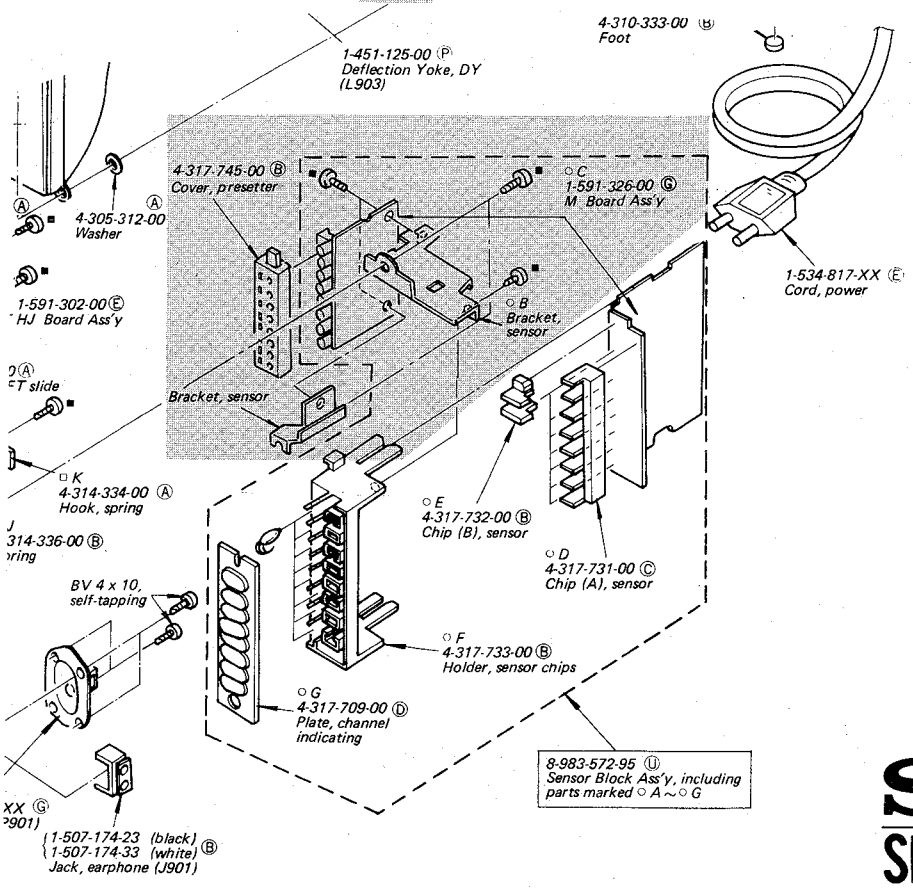
The presetter assembly has been deleted and the M3 board has been changed.

Note: No circuit modifications are made for these changes.

2. CHANGED PARTS LIST

Ref. No.	Former Part No./Description	New Part No./Description	Remarks
	1-591-191-00 M Board Ass'y	Ⓖ1-591-326-00 M Board Ass'y	changed
	1-463-173-00 Presetter Ass'y, BT-927	-------	deleted
VR151 ~ 158	-------	Ⓔ1-224-956-00 100kΩ, adjustable resistor	added
	4-317-730-00 Bracket, sensor	Bracket, sensor	changed
	-------	Bracket, sensor	added
	-------	Ⓑ4-317-745-00 Cover, presetter	added

3. EXPLODED VIEW — Page 36 — : Changed Portion

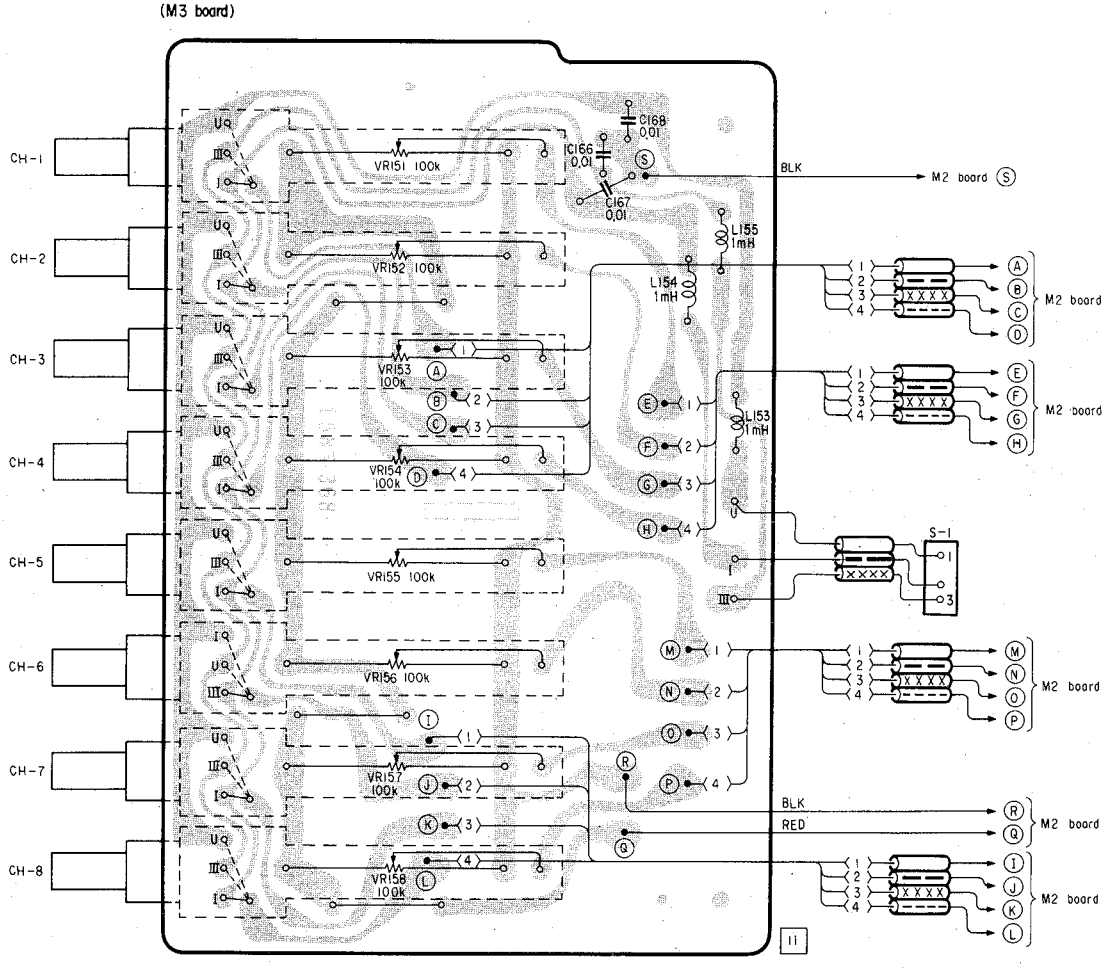


SONY®
SERVICE MANUAL

4. INTERCHANGEABLITY

The former and new M3 boards are not interchangeable.

5. MOUNTING DIAGRAM – M3 Board –



Note: ○— : parts extracted from the component side.
●— : parts extracted from the conductor side.

9-962-256-81

Sony Corporation
© 1977

7910210-4
Printed in Japan